



AN
ESSAY

ON THE
THEORY AND TREATMENT
OF FEVER AND INFLAMMATION,

ACCORDING TO THE BOTANICAL OR REFORMED SYSTEM OF PHYSIC AND
SURGERY, TAUGHT AT THE REFORMED MEDICAL INSTITUTIONS OF
NEW YORK CITY, AND WORTHINGTON, OHIO.

ALSO, AN
EXAMINATION AND EXPOSITION

OF THE EFFECTS OF
BLOOD-LETTING, MERCURY AND ANTIMONY,
UPON THE HUMAN SYSTEM, AND OF THE
IMPROPRIETY OF USING THEM IN THE
TREATMENT OF DISEASES.

TO WHICH IS ADDED,
A FEW OBSERVATIONS ON CHOLERA

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the Reformed Medical Society of the United States.

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DISTRICT OF OHIO, TO WIT:

BE IT REMEMBERED, That on the 30th day of November, A. D. 1833, **D. L. TERRY** of the said District, hath deposited in this Office, the title of a book, the title of which is in the words following, to wit: "An Essay on the Theory and Treatment of Fever and Inflammation, according to the Botanical or Reformed System of Physic and Surgery, taught at the Reformed Medical Institutions of New York city and of Worthington, Ohio. Also, an examination and exposition of the effects of Blood-letting, Mercury and Antimony, upon the human system, and of the impropriety of using them in the treatment of diseases; to which is added, a few observations on Cholera. By **Dr. D. L. TERRY**, Practitioner of the Reformed System of Medicine, and Member of the Reformed Medical Society of the United States." The right whereof he claims as Author and Proprietor, in conformity with an act of Congress, entitled "an act to amend the several acts respecting copy rights."

Attest, WILLIAM MINER,
Clerk of the District.

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P R E F A C E.

THE Science of Medicine is so extensive and intricate, that no one need expect to obtain a knowledge of it, except by a long, persevering, and regular course of study. It is not therefore, the design of the following pages to qualify persons for the practice of medicine; but to make them acquainted with some of the most important general principles of practical medicine. To develope some of these great truths in medical science, which have been buried for centuries past in the depths of false science and fashionable prejudice; to expose, if possible, more clearly than has been done heretofore, the many dangerous errors which have so long existed, to injure the practice, to prevent useful improvement, and to oppose all attempts for a reformation in this important science; to set forth some of the leading principles and peculiarities of the Reformed System of Medicine; to correct some of the many misrepresentations and erroneous impressions in relation to this system; and to encourage improvement in medical science. These are the motives which have induced me to undertake the task of writing this Essay. I do not give all the principles and ideas as being sanctioned and approbated by every Reformer. Some of them are peculiar to my own mind, and I hold myself responsible for their correctness and support. But in general, they are such as are taught by the founder of the Reformed System, and sanctioned by all true Reformers. In so short a work as the following, it cannot be expected that the different subjects treated, should be discussed with as much minuteness as even their importance demands; yet, if I have presented them in a light calculated to enlist the attention of the public in their investigation; if this work, which claims no high pretensions, shall serve as a pioneer to another upon the subject, from an abler pen; and finally, if it shall result in any real good to mankind, a consciousness of the same, will be the author's highest and best reward.

D. L. TERRY.

INTRODUCTION.

ANY deviation from long established opinions upon important subjects, is not only forced to undergo the ordeal of public scrutiny, but is, in general, met by all the obstacles, which an unqualified attachment to pre-conceived notions, a love of popularity, the prejudice of early education and the selfish propensity of monopolizing all improvements, can suggest. These may be reckoned among the most efficient causes, which have combined in all ages to clog the wheels of the car of Science, and thus materially to retard its onward march. It appears also, to have been more especially the case in the science of medicine; for no sooner had the genius and talents of some one in the profession ventured beyond the known boundaries of any branch in the science, and built some new and splendid theory, or discovered some unnoticed principle in the economy and government of the human system; no sooner had any one exhibited sufficient courage and independence, thus to rend the chains of mental despotism and oppression, than the indignation, the slander and ridicule of hundreds of his professional brothers were levelled at him, to bring him to yield allegiance to their opinions and prejudices, or to effect his exile from the field of medical science. This was the spirit which opposed the doctrine of Doctor William Harvey, in relation to the circulation of the blood; but in spite of all opposition, his efforts were crowned with the attainment of their noble object, and it is now received as an invaluable acquisition to the science of medicine. Such is the ignoble spirit of jealousy and envy, that it is not the usual fate of novel doctrines, however important, to be received without opposition; accordingly, we find there were some, who,

biased by passion and interest, had the boldness to deny the facts so fairly proved, and to calumniate the name of the truly ingenious and illustrious Harvey. It is observed by a judicious writer, that "the books of Harvey present us with many indications of a great mind, acute discernment, unwearied application, original remark, bold inquiry, and a clear, forcible, and manly reasoning."

The very brilliant and important discovery of the vaccino disease by Doctor Edward Jenner, a celebrated English physician, for a time met with a similar fate: it was treated as chimerical; but the discovery is now looked upon as an incalculable blessing to mankind, and for which the author deserves lasting and universal respect and gratitude.

Medical science is progressive, and the melancholy triumph of disease over its victims clearly evinces, that the combined stock of both ancient and modern learning is greatly insufficient to perfect our science. It is very evident that, in order to give permanency to the theory and practice of medicine, this theory must be founded upon true philosophic medical logic; it must be supported by plain facts derived from actual demonstration and practical experience.

Had medical theories been built upon such basis, history would not present us that numerous list of revolutions in the science, which it now does. We find, by adverting to the pages of medical history, that the theories in physic have been extremely numerous and fleeting. Many of them were no more than visionary hypotheses, arising from perverted imaginations, totally unconnected with facts, and altogether repugnant to the plainest dictates of observation and experience. All ages have teemed with the controversies of the learned; and while ambitious projectors imagined they had attained to perfection, their cotemporaries or immediate successors contested their principles, and triumphed over their errors; hence we see theories, which scarce survive their authors, give place to others as transient and unsubstantial as themselves; but all this fluctuation in theoretical medicine may be traced to erroneous premises—to mere metaphysical speculations and imaginary conjectures.

The plain and determinate operations of the laws which govern living animal matter had been overlooked; they

were too humble in themselves to attract the observation of those whose vanity had flattered them with the idea that they had penetrated so far into the labyrinths of knowledge, as to place them beyond the reach of nature's instruction. The common popular routine of medical practice, notwithstanding the improvements which are pretended to have been made in it by its adherents, is, it must be confessed, still fraught with deficiencies, far indeed beneath the standard of perfection, and altogether inadequate to our desires. To disable the destroying arm of disease, how often are the efforts of medical skill entirely inefficient!

To what extent the frail condition of our nature is capable of being meliorated and existence prolonged by the timely and judicious application of correct principles of medicine, must still be reserved to the wisdom and industry of future generations to determine. It is nevertheless a duty incumbent upon every physician at least, to consecrate his talents to the advancement of this science; duly to appreciate and exalt its merits; to cherish its dignity; to study and improve its principles; and to cultivate a due sense of the inestimable blessings which mankind should derive from its influence. It is to be regretted that so many causes have existed, and that so many still exist, to retard the improvement of medical science. For ages, its progress was obstructed by the edict of sovereigns and legislatures. The Emperor Charles V. in the sixteenth century, although addicted to crimes of the darkest stain, ordered an assembly of divines to deliberate, whether it were lawful, in point of conscience, to dissect a dead body. During the same reign, a violent controversy subsisted respecting the question, whether in a pleurisy blood should be drawn from the arm of the affected side, according to Hyppocrates, or from the opposite side. The university of Salamanca, in Spain, decided by a decree, that no one should dare to let blood, but from the contrary arm, alleging that the other method was of no less pernicious consequence to medicine, than Luther's heresy had been to religion. Haller, that eminent and indefatigable physiologist, was obliged to flee the city of Paris, to avoid prosecution for dissecting dead bodies. In some countries, yes, even in our land of professed liberty, laws

have been enacted, having a direct tendency to suppress the spirit of free inquiry and learned investigation, which the improvement of this highly important science demands. These laws have said to the friends of medical improvement, "thus far shalt thou go, and here thy inquiries shall end;" they have prescribed the limits and declared non-protection to him who shall dare exceed them. But we are happy to add, that, by the democratic influence of progressive knowledge, these most despotic and oppressive laws have generally been repealed—leaving the medical practitioner no further aid than that which his skill, his knowledge and virtue shall merit.

Another cause, which has proved almost an insurmountable barrier to the growth and improvement of practical medicine, is that illiberal feeling, existing in the minds of physicians of different opinions, towards one another, as denominations, and sometimes even as individuals. There is a want of mutual confidence--of unity of action, in promoting the welfare of the science. It will be admitted by every intelligent and liberal physician, that the field of medical science is an extensive one---that new discoveries have been making ever since it was first entered into—that much of it must even yet remain undiscovered. If this be admitted, why need one physician condemn another, because he has had the curiosity and courage to explore some of the fields which had never been before discovered; and if in his travels he should find some new remedial agent, or imbibe some fresh principle, should he not have the privilege of making known the same, and thus indulge the virtuous and pleasing habit of doing good?

It is an advantage of no ordinary moment, that we live in a Republican Government; a government which tolerates freedom of thought, the liberty of speech and of the press; where every one may present to the world whatever useful or important knowledge he may have discovered.

As Reformers in the science of medicine, we profess to have made new and important discoveries in some of its departments. We believe that many errors exist in the common practice of medicine; nor are these errors alone confined to the practice; errors in theory lead to errors in

practice; hence to expose these errors, both theoretical and practical, and to establish a consistent system of theory and practice, which shall be in accordance with correct physiological principles, and which shall apply to all cases of fever, is the principal object of these pages, and should we attain our object we shall gain the reward which is indispensably connected with the consciousness of doing good.

In the profession of medicine, as well as in that of theology, many controversies have been raised and continued, merely from a misunderstanding of terms and an ignorance of opposite doctrines, or controverted points. It has been a subject of warm discussion, whether life be depending upon organization, or organization be depending upon life. The question is supposed to have been ably discussed on both sides, each party claiming men of distinguished abilities and profound erudition; and each party in turn claiming the victory. But if we follow the arguments on both sides, we shall be convinced that neither party is able to establish its position; we shall discover that simple organization, abstractly considered, has no power of producing life; nor can life exist independent of organization. The simple and undeniable fact then is, that they are mutually and equally dependent upon each other. Life resides only in the structure or body of its own forming; so it may be said, that life and organization grow up out of each other, and are inherently and necessarily united. The vital principle, or the indescribable something, which seems to be the main-spring of all the actions which take place in the human machine, has been differently explained by those whose knowledge was too limited to lead them to confess their ignorance upon subjects which they could not comprehend; yet all these have tacitly and unintentionally acknowledged the truth: yes, they have acknowledged the truth from unyielding necessity—they have failed to describe this vital principle; still they must submit to the humble admission which we are reduced to: that it is, "*an indescribable something*," only known to us by the phenomena which it presents in the animal and vegetable kingdoms.



ESSAY ON FEVER, &c.

CHAPTER I.

ON SENSIBILITY AND CONTRACTILITY.

THE physiological principles, or properties in the animate world, which appear to be the primary discernible effects of the vital principle, are denominated Contractility and Sensibility; these are properties, without which life cannot exist in any being, animal or vegetable. Contractility, in a peculiar sense, is a property of all matter. In inanimate matter, it is commonly denominated attraction of gravitation; or, in a more limited sense, the attraction of adhesion. But that kind of contractility, which is more especially the subject of our present inquiry, we shall denominate vital organic contractility; and this is divided into that kind which exists in animals, and that which is found in vegetables. Contractility, when applied to animal matter, signifies that property which holds together the various parts of the animal body; which keeps the particles in contact; which brings together the parietes of the heart's ventricles and diminishes the calibre of the arteries and veins, and produces all other actions in the animal body, which consist in lessening the magnitude of the organs; in bringing the particles in close contact with one another.

Sensibility is a property belonging generally to animate matter. It exists in vegetables to a certain extent, and in some more than in others. Almost every one has observed, in what an astonishing manner the sensitive plant recedes

from the near approach of the finger. In this example, we discover the effect of vegetable contractility and sensibility.

The sensibility of plants renders them susceptible of the stimulus of those materials, by means of which they subsist; such as heat, air, moisture, light, &c. Animal sensibility may be considered under two divisions or heads.

First. Simple organic sensibility; by the aid of which, combined with contractility, the vital animal functions are performed. This species of sensibility supplies those organs, the functions of which are performed involuntarily; that is, independently of the will or the act of volition.

Second. Sensibility, through which the impressions made upon any of the senses are conveyed to the centre of reflection and thought—this species of sensibility is commonly called perceptibility. It supplies those organs, the actions of which are voluntary, that is, under the control and direction of the will.

Contractility, as has been already observed, is a general property of all matter; but in living matter it is modified and strengthened by the influence of the vital principle. This property varies in different organs and structures in the human system. The muscular fibre appears to be highly charged with it. In the osseous system, it appears to be but little different from what it is in vegetables. There is sometimes mention made of a property of animal matter, termed elasticity; but it would appear that this is only a modification of contractility. Sensibility in animals is considered to be dependent upon a system of delicately organized cords, which have their origin in the brain and spinal marrow, and which are sent off from thence to every part of the body. These are called nerves, and are supposed by some to contain an extremely subtile fluid, termed the *encephalo-spinal fluid*. The various organs or parts of the body differ very materially in regard to the different degrees of sensibility which they naturally possess; each organ and system of organs being endowed with that quantity and quality of sensibility which is best calculated to attain the object of its creation. In order that a perfect state of health may exist in the human system, there must be an exact equilibrium maintained between the properties of contrac-

tility and sensibility, throughout the different organs of which the body is composed. The vital principle must be at its standard. It never can deviate from this, except by sinking below. Thus far we deem it necessary to go into the examination of these important principles of the science of life. In these observations, we do not pretend to have advanced any new ideas; or any with which the scientific medical gentleman is not familiar. Our object in treating upon these physiological subjects, is to aid those who may peruse these pages and who are not acquainted with medical science, in comprehending our peculiar doctrine of fevers and the propriety of the course we pursue in their removal.

CHAPTER II.

OF THE NATURE AND USES OF THE BLOOD IN THE HUMAN SYSTEM.

THE blood is a red homogeneous fluid, of a saltish taste and glutinous consistence, which circulates in the cavities of the heart, arteries and veins. Its quantity is estimated to be about twenty-eight pounds in an adult; of this four parts are contained in the veins, and a fifth in the arteries. Some anatomists and physiologists regard the blood as a fluid possessed of life. Mr John Hunter, in speaking of the blood, asks the following question: "How could the blood impart life to the various organs of the body, if it possesses no life in itself?" The specific gravity of blood is a little more than that of water. Blood, upon being drawn and permitted to stand for a short time, forms a soft mass, which separates spontaneously into two parts; the one liquid, yellowish, transparent, called *serum*; the other soft, of a deep brown red, entirely opaque; this is the *crur* or *clot*. This occupies the bottom of the vessel; the serum is placed above. The spontaneous separation of the elements of the blood does not take place quickly, except where it is in repose. If it is agitated, it remains liquid, and preserves its homogeneity much longer. Mr Hunter divides the blood into the coagulating lymph, the serum, and the colouring matter, or the red globules. All physiologists are agreed in attaching great importance to the blood. It is the most essential fluid in the human system. It is called the *vital fluid*, the *pabulum of life*. All parts of the system are made out of it; we grow up out of it, and are entirely supported by it. It distends the cavities of the heart and blood-vessels, and prevents them from collapsing; it stimulates to contraction the cavities of the heart

and blood vessels, by which means the circulation of the blood is performed; it generates within itself, by the friction of its particles, animal heat, which it propagates throughout the body; and lastly it is that source from which every secretion of the body is separated. Whatever the vital principle may be, it is continued and supported by the blood. This fluid is formed from the aliment which is taken into the stomach, after this aliment has undergone the *chemico-vital* process of digestion. Hence we must admit with Mr Hunter, that during disease the quantity of blood is diminished, from the fact that it is constantly expended in the support of the vital functions, while the process of making more blood is mostly suspended for the time. The blood, from various causes, may become mechanically, but not chemically, deteriorated; for whatever extraneous matter may combine with the blood, still the constituent particles of this fluid are unaffected; no chemical union having taken place between the blood and the foreign matter.

CHAPTER III.

OF THE PHYSICAL SYMPATHIES.

THAT reciprocal dependency, which is known to exist between the different members or organs of the human system, is expressed in medical science, by the term sympathy. The particular or specific nature of this principle has never been clearly ascertained. It appears to form that beautiful and invisible chain, which encircles and unites all the parts of the body; the medium of vital communication between them; the principle by which one organ becomes the mutual bearer of the sufferings of another. It enables each member of the system, to "feel for others wo, and patiently endure its own."

Were we to take a limited view of this principle in human nature, we might even be led to conclude, that "nature is not wise in all her works." For we should see organ after organ becoming involved in disease through this medium of sympathy. We should see original or idiopathic disease of the liver, extending itself to the lungs, stomach, and finally to all parts of the body, involving even the mind itself in consequences of the most deplorable and melancholy character. But when we survey the whole system of physical sympathy, we shall discover abundant cause to admire the Author of nature, as much in this, as in the rest of his works. By sympathy, the united strength of all the organs of the system are brought to resist the attacks of the many causes which operate upon the body to produce disease. The unassisted strength of any one individual organ of the system, would, in all cases, where any considerable cause of disease should exist, prove totally inadequate to eradicate or remove this cause; but when a union of all the forces of the system make a simultaneous attack upon any

morbid cause, it must generally yield. The general sympathy of the human system may be compared to the general government of the United States. Each State, for its own safety and for the welfare of the others, has voluntarily entered into a social compact with all the others, and has pledged herself to aid in preserving the liberty of the whole. She still reserves the privilege of enjoying the liberty of her own conscience, and of forming her own laws for her individual government.

The various organs of the system are under the truly republican government of universal sympathy. This union seems to have been formed with a strict regard to the well being of the whole body; as if every organ was sensible of the truth of the motto, "united we stand, divided we fall." The individual laws which govern each organ have some peculiarities of a specific nature, adapted to the particular function which it performs in the animal economy. The sympathy existing between the body and mind, or the *physico-mental* sympathy presents to the philosophic mind a field of curious and interesting speculation. That diseases of the body affect the mind, no one of experience and observation can deny; nor are the affections of the body from diseases of the mind less conspicuous. The actual exercise of the mind is depending in a certain degree upon the vital energy imparted to it by the body. So, the functions of the body are in some degree under the special influence of the mind.

The *modus operandi*, or the manner in which many medicines produce their effects upon the human system, is only explicable upon the principle of physical sympathy. Some medicines, upon being taken into the stomach, affect the whole system almost instantaneously. This must undoubtedly take place through the medium of nervous physical sympathy. No one part of the body can be materially affected, for a considerable length of time, without affecting the other parts. Hence when an organ receives an injury, which produces inflammation in it, the heart and arteries take on an increased action, giving rise to what is termed in medical language, *sympathetic or symptomatic fever*.—But a more admirable and exalted principle of sympathy,

than has yet been noticed is that which exists between mind and mind. This is depending upon virtue and knowledge. The extensive exercise of it is congenial to every noble principle of the soul. It contributes materially to the health of the body, and to the happiness of the mind. It is that which causes us to weep with those who weep, and to rejoice with those who rejoice; it is by the exercise of it, that we may learn that there is a joy in grief.

But to return again to the subject of physical sympathy. We find it exerting itself in all diseases; distributing strength and vital energy to those parts, whose peculiar situation at the time may demand a more than ordinary degree of vitality. Before we proceed to a further examination of the phenomena produced by sympathy, it may not be improper to observe, that the sympathy of the body is sometimes divided by authors into "sympathy of *equilibrium*," and "sympathy of *association*." The sympathy of association is produced suddenly and for a short time; that of equilibrium is produced more slowly, and continues in operation during a much longer time. The sympathy of equilibrium is seen in the effects produced on any one organ from the inflammation of another; an example of which we have in case of gastric inflammation, or inflammation of the stomach, where the brain is very sensibly and materially affected.

We have an instance of the sympathy of association in the mutual increase of action of the skin and liver; but if this increased action is continued long, then this association is set aside by a stronger and more general principle of the equilibrium of action, and the sympathizing part is weakened. Upon this principle may be explained the prevalence of affections of the liver in warm climates. As the warm season approaches, the vigilant eye of nature perceives the gradual rise of the animal heat; it sees the necessity of instituting some process, to prevent the temperature of the system from rising above its healthy standard. By observing the actions of the different parts of the system, we shall discover the process of reducing animal heat to be an accelerated action of the perspiratory system. Every one knows that he sweats more in warm weather than in cold; and it is for this reason, viz. to reduce the animal tempera-

ture. In southern climates, nature is obliged to push this process to a great extent; and as the skin and liver are sympathetically connected, the latter organ becomes weakened, upon the principle of the sympathy of equilibrium; the action of the liver is first increased, but it being the sympathizing part, is finally subjected to the laws of equilibrium of action. The liver, then, being in a debilitated condition, at the time when the autumnal season sets in, is but illy prepared to meet the frequent attacks made upon it, through the medium of *cutaneo-hepatic* sympathy, by the sudden transitions of atmospherical temperature, so common in southern climates, especially at that season of the year.—The perspiration, by some slight exposure, is checked; giving rise to obstruction of the liver, or preventing the excretion of the bile. This gives rise to the bilious appearance observed in those fevers denominated *yellow* and *bilious fevers*. To a cause, though opposite when abstractly considered, yet similar in effect, may be attributed the general prevalence of pneumonic affections, or diseases of the lungs, in northern latitudes.

In order to maintain a proper and necessary consistency in the fluids of the body, nature has several *chemico-animal processes*, by which she produces this effect. One of these is that of natural insensible perspiration. But in cold weather the action of the skin is diminished, in order that a due degree of warmth may be supported in the system; but to effect the object before mentioned, viz. to prevent the fluids from becoming too much attenuated, the pulmonary system takes on an increased action. This action being continued, must of necessity, to a certain extent, give rise to weakness of the lungs, rendering them less able to withstand the attacks of a severely cold air, to which they continually present such an extended surface. The doctrine of sympathy is one of great moment to the practitioner of medicine, both in a pathological and practical point of view. It is upon this principle, or through this medium, that he is enabled to bring about many of those desirable results, which follow the exhibition of his medicine, and which are his best reward, for the anxiety and deep responsibility which is imposed upon his mind, by the exercise of his profession.

CHAPTER IV.

ON FEVERS.

THE term fever, in its vague and indefinite sense, includes a very numerous and diversified class of diseases, common to both sexes, to every period of life, and to all climates and countries. In the most extensive signification of the term, it is said to be the most general of all the morbid states to which the human constitution is liable. Doctor Sydenham has said, that it constitutes in its various forms two-thirds of the diseases of mankind. We agree with a celebrated medical author, when he says: "It must appear obvious, that, for the practical purposes of the physician, the general application of the term fever is too vague and indefinite." To avoid this difficulty, authors have distinguished fevers into two great classes. Such as arise from general causes and operate upon the body at large, are denominated *primary*, or idiopathic fevers: while those which depend upon inflammation or some other local affection of particular organs, are called secondary or symptomatic fevers. The division which is now generally adopted, is into the three orders of intermitting, remitting and continued fevers, which are again distinguished into *synocha*, or inflammatory fever *synochus*, or simple continued fever, and *typhus*, or low nervous fever.

Each of these general divisions is sub-divided into others, which are named from some peculiar symptoms, or the obvious affection of some particular organ or set of organs, in each case. Thus, where, in addition to the usual febrile symptoms, there is a redundant secretion and vitiated state of the bile, occasioning frequent evacuations by vomit or stool, the fever is called *bilious*. In fevers of the continued kind, attended with great prostration of strength, general

torpidity of action, diminished arterial action and delirium or coma, the term typhus is commonly used to distinguish them. The sympathetic or irritative fever, which usually attends in the late stages of phthisis pulmonalis or consumption, is denominated *hectic*. That which arises from the habitual use of ardent spirits is termed *febris cerebialis*, or *brain fever*, &c.

That which is accompanied with a peculiar yellowness of the skin, is termed *pestis tropicus*, *typhus icterodes* or yellow fever. That, which is accompanied with bilious appearances, combined with affection of the lungs, is called *pneumonia billiosa*, or *typhoid pneumonia*. And many other terms are applied, by some authors, to febrile affections, which merely designate some prominent symptoms in each case. If we will condescend to adopt the division marked out by nature in all febrile diseases, we shall find that all affections of the human system, attended with those symptoms, which, according to the common acceptation of the term, constitute what is called fever, are naturally and specifically divided into two entirely separate and distinct heads.

The general affection is to be considered as being made up of, first, a morbid or diseased action; secondly, of a salutary or restorative action. By the first, or morbid action, we mean that loss of the balance of sensibility and contractility, which balance is indispensable to the health of the system: that is, whenever this equilibrium is destroyed, the well-being of the system is endangered, the general health is disturbed. This state of the system is generally overlooked by common observers; yet the one who is thus affected is very conscious of it. He is alternately affected with chills and flashes of heat; he is dull and languid; he feels, at different times, pains in different parts of the system; he has no disposition to eat; he is averse to all action; his mind is torpid and much depressed; and finally, he feels, knows, and declares himself to be "sick." This is the only term by which his indisposition and state of feelings can be expressed at this time. This state of things continues, with some slight variations, for two, three, or more days, when a different state of the system is felt; the action of the

heart and arteries is accelerated; the temperature of the surface is elevated; a general dryness and thirst is experienced throughout the system; a disturbance in the system of thought is manifest; a total aversion to food, a sense of debility and incapacity of physical and mental exercise is painfully felt. The individual, as well as all around him, now knows what is the matter with him. He has a fever. He is alarmed and very naturally sends for the doctor.—The doctor tells him he has a fever. All agree as to his disease. We would not wish to be understood as considering the application of the term fever, to the above described state of the system, improper or unphilosophical. The term being derived from the latin *ferveo*, signifying “to burn,” not inaptly points out a prominent feature of the patient’s condition and feelings; I mean the real and sensible increase of temperature. It is the construction that is generally given to this term that we consider unreasonable, unmedical, at war with common sense, and plainly contradicted by all experience and observation. It is the method of treatment, erected upon this erroneous view of fever, that we, conscientiously, and from the strongest evidences, are convinced is entirely wrong in itself, subversive of those salutary laws and operations of nature, by which the animal machine is governed, both in disease and health, and the practice of which consigns thousands of our fellow beings to an early and premature grave. O that a subject of such vast importance as the present might be duly and seriously reflected upon by every intelligent mind! O that kind Heaven would avert this evil from the world!

We do not pretend to say that temporal death, which, according to the laws of physical fitness, must be the final and inevitable fate of all, is to be regarded as an evil. By no means. It is the pathognomonic symptom of a perverted understanding and an unphilosophic mind, that pretends to discover aught of evil or aught that works not for admirable ends, in the innumerable events which take place under the direction of a kind and benevolent Providence. So we are to consider the natural dissolution of our bodies rather as a blessing than otherwise; but we are also to regard that portion of existence which is allotted to us in the present

world as a blessing, and any cause which may be the result of our own ignorance or folly, which shall tend to abbreviate the period of our existence in this world, is justly regarded as an evil. It is the increased heat, the quick pulse, and the flushed face of the patient, that alarm the friends, and all who are particularly interested in the welfare of the individual sick.

Those very symptoms which are viewed as dangerous and prejudicial to the patient, by common observers and by the self-styled *regulars* themselves, are looked upon by us and by medical Reformers in general, as salutary and having a direct tendency to restore health to the constitution. The symptoms, of which we now speak, are increased action of the heart and arteries, with an elevated temperature of the whole surface.

These are the symptoms which constitute fever, according to the specific and derivative meaning of the term itself, and according to the common acceptation of the term. As we have already said, affections which are usually termed febrile are naturally divided into the morbid or diseased action, which is primary or idiopathic, and the sanative or restorative, which is subsequent or symptomatic.

Now, what we have just called fever and what is generally admitted to be fever comes under the second head of the natural division, and, so far from its being a disease or a diseased action, it is actually necessary, salutary, and tends directly to remove the first state or diseased action, and consequently to restore health. We are well aware, that some will say, this is Thompsonianism, and that we are steam doctors.

As it respects the first, or the idea that fever is a necessary and salutary action of the system, it is very immaterial whose doctrine it is, so long as we are fully convinced that it is true. A truth is none the less so and none the less valuable, because it is understood and believed by a steam doctor. But in respect to our being Thompsonians or steam doctors, we must be candid, and declare that we never particularly studied that mode of practice; that we never practised it at all; and that it forms no part of the reformed medical practice, established by the learned and benevo-

lent Doctor W. Beach, and taught by himself and other regular bred physicians, in the Reformed Medical Colleges of the city of New York, and of Worthington, Ohio. The idea, which we have already expressed concerning fever, is fully proved by a close examination into the operations of nature, by experimental facts, and medical logic, and it is we think, essentially true, notwithstanding it is believed by Thompson. We would ever wish to be delivered from that state of mind, in which we could relish an error from the mouth of some great man, better than the truth from even Thompson himself. If any one should be led to conclude that we Reformers, are steam doctors, because we entertain correct notions in relation to fevers, we could mention a tolerably respectable number of eminent physicians of the old order, who entertain and published the same doctrine of fevers, though not in the same words; among these are to be reckoned Mr John Hunter, the celebrated English surgeon; Doctor Johnson, an English physician, and author of great merit; Doctor Gregory has expressed this doctrine; Stahl and Hippocrates the same notion of fever. If these were all steam doctors, we should not feel that it were any disgrace to medical reformers to be classed among them.

Let those self-sufficient and arrogant pretenders in medicine consider the learning and talents of the authors which we have mentioned, and let them reflect, that it is the opinions of these learned and noble minded men, that they are opposing, as well as those of Reformers, and they may then be less profuse with their abuses. We are ready to prove our positions, not only by plain reasoning, but from the very words which have fallen from the lips of the ablest and best authors in the science of medicine.

But to return to the inquiry of the doctrine of fevers; we contend that what we and what all agree to be fever, is a favorable and necessary symptom. It is present sooner or later in every disease of any extent to which the human system is liable, if there is sufficient strength to excite and support it. Whenever the health of a person becomes deranged from any cause whatever, this state of the system cannot remain long without giving rise to what is termed a

reaction—a fever. This is nature's process of curing a disease; this is the way that nature removes obstructions; relieves oppressed organs; restores impeded functions and establishes the reign of health where it has been subjugated by any morbid cause.

In fevers the disease for the removal of which the fever is established may be situated in any part of the system, and it may be of different specific natures. But in most cases of fever, especially of that kind called idiopathic, the system is generally affected throughout; the brain, the stomach, the kidneys, the intestinal canal, the liver and the skin all show at different times manifest signs of disorder. The secretion and frequently the excretion of the bile is partially or wholly suspended; the skin, in consequence of the regurgitation of the biliary matter into the circulation, becomes tinged with a yellow hue; this cast is frequently observable in the external coats of the eye; the action of the stomach is so much diminished, as to disqualify it for the work of digestion. This gives rise to the loss of appetite; sickness of stomach, furred tongue, &c. which are common in cases of fevers. The action of the skin is also very torpid, by which a large quantity of the perspirable matter is retained in the circulating mass; this renders the blood irritating, and is a source of disease in the system; yet, as is said by Mr Hunter, this matter does not enter into a chemical union with the blood, but admits of a separation by a *chemico-vital* process, which shall leave the blood in its usual healthy state.

It is worthy of notice in this place, that a larger quantity of worn out and sparable matter is removed from the system by insensible perspiration, through the system of the cutaneous exhalents, than by any other vital or animal process.

To illustrate our peculiar views of the nature of fever, we will take for example a case of common intermittent fever, or ague and fever; which, by the by, is pretty well known from experience by most who have resided long in the Western country. An individual, after having been exposed to the influence of *marsh miasmata* or some other efficient cause begins to feel dull and languid; his appetite diminishes, his skin is unusually dry and husky—a peculiar bitter taste is observable in the mouth; he feels pains in his head,

shoulders and back; after a short time elapses, he is affected with a general sensation of chilliness. So much for the symptoms which point out a diseased action; now for the stage of reaction—the salutary effort of the Constitution; the restorative action—the fever. When the cold stage shall have continued for a longer or shorter time, according to circumstances, the action of the heart and arteries is much accelerated; we say much, but we mean in proportion to the constitutional strength, and the extent of the morbid cause. The pulsations at the wrist become fuller, stronger, quicker and more frequent; the temperature of the surface raises, the face is flushed, and the blood appears to be rushing to the surface.

This is an exhibition of the second natural division, of which we spake; this is that necessary action which nature institutes for the relief of herself; she seems to be conscious of her own suffering, and of the necessity of the course which she pursues. We will now inquire what is the ultimate design of nature in making this effort? Though this question is already answered sufficiently plain, in a previous consideration of this subject, yet it may be expressed in this place with a peculiar bearing to the present case. We answer then, that the design of this, is to restore that equilibrium throughout the system, which has been and is disturbed through the agency of some external and morbid cause; and as a proof of the truth of this position, we need only mention the result of this action, called fever. At the time when it commences, we see that there is coldness of the surface and extremities, a dry skin, a furred tongue, a deficient appetite, &c. After it has continued for a longer or shorter period, according to the necessity and particular circumstances of the case, a general moisture or sweat breaks out upon the surface; the temperature of the skin is reduced to its natural standard; the tongue becomes moist and looses its coating; the action of the stomach is restored, in consequence of which, the appetite returns; the due balance of the circulation and excitability of the system is restored; the patient is well for the time; the design of nature is accomplished. Here then, we have traced the various phenomena which present themselves during a fit or paroxysm

of intermittent fever. We have shown that from external causes, the individual became morbidly affected, diseased, or in common language "sick;" and that by the reaction or fever, he becomes well. Now however strange this may appear to some, it is nevertheless true; and we love truth, for its own intrinsic goodness. Ye professedly learned, and great doctors in medicine, is not this correct doctrine? We appeal to your sense and judgment for an answer. We know that in order for you to be qualified to appreciate the correctness of the doctrine, you must come out from the regions of fanciful and fictitious speculations---of baseless fabrics and sophisticated theories, into which you have been led by reading authors, who spurned the idea of confining themselves to plain and philosophical facts; who were led by imagination, (the *ignis fatuus* of the human mind, which always shines brightest, and influences those minds most, which are least enlightened by true philosophy and self-knowledge,) to disregard the instructions of nature, and arrogate to themselves the prerogative of deciding all points of medical knowledge. It will not be sufficient for you to ridicule the doctrine, or to endeavor to put it down by mere assertions. Such a course might suit the prejudiced and ignorant mind, but it will never convince or satisfy the intelligent, the philosophic and liberal mind; and such minds, we are happy to say are becoming too numerous for the well-being of impostors, or the growth of superstition, bigotry or aristocracy.

We therefore, call upon you to acknowledge the truth of the doctrine, or else prove by philosophy---by true medical reasoning, and by experience and observation, that it is false. If you do either of these, you will act the part of honest men; you will discover your zeal in the doctrine in which you profess to believe; you will prove that you love light and truth more than darkness and error, by the rectitude of your conduct; you will save your own doctrine from the grave of oblivion, and confer an important favor upon your humble writer, and upon many of your fellow men who think in this matter as he does.

That man who shall remove an error from our mind, shall ever be looked upon as having rendered us a kindness

—he shall be considered as our benefactor, and an additional seed of gratitude shall be sown and cultivated in our mind for him; for we cannot conceive how any one could do us a more important favor than to divest our mind of an error, and establish in the place of it, a truth.

CHAPTER V.

OF THE DIFFERENT KINDS OF FEVERS.

ACCORDING to the true signification of the term fever, any terms used to qualify it, other than such as specify difference in degree, are improperly applied. Fever signifies action and heat; hence it is improper to say, "bilious fever," which in reality would be to say, bilious action and heat. The bilious appearance is a symptom of the disease, not of the fever. In those cases of disease which are usually, but unscientifically called bilious fevers, the action of the liver and its appendages, is so much diminished, that the bile is not excreted, but it is taken up by the hepatic absorbents and carried into the sanguineous circulation, and thence to all parts of the system; and finally in attempting to be discharged from the system, is, in consequence of the loss of action in the perspiratory system, deposited under the skin, in the coats of the eye, &c., and this gives rise to the yellowness which has caused it to be called *bilious* or *yellow fever*. It would be much more in accordance with correct pathology and true science, to say "a disease of the biliary system, attended with fever." Nor is it strictly proper to say, "typhus fever;" the word typhus being derived from a Greek word signifying stupor, does not properly qualify the term fever. We have not a very clear conception of the peculiarities of stupid heat, nor does the word stupor apply well to any action, which, comparatively speaking, is accelerated in the slightest possible manner. It would be more philosophical to say, "a disease of general debility of the system, attended with fever of a low degree." The term *intermittent*, is very correctly applied to that state of the system in which there is fever, which intermits at regular

periods; there is not the least impropriety in saying that a suspension of increased action has taken place. The same may be said of the terms *remittent* and *continued*, when applied to fever. But we cannot say the same of the term *scarlet*, which is applied to a disease in which there is a peculiar eruption and redness of the skin. There is no relation or qualifying sense existing between the term scarlet and fever, or *action and heat*. We know nothing of colored actions, or colored caloric. So of spotted or putrid fever. We therefore, have no objections to a regular system of *nosology*, wherein each particular disease is marked out by one or more prominent and leading symptoms: such a course appears quite necessary to facilitate the acquisition of knowledge in the highly important science of medicine.

It is to such a use of terms as is calculated to mislead the mind and prevent it from arriving at truth, that we object. We are far from thinking that all diseases have their origin from one and the same cause, or that they are to be treated invariably with the same medicine and in the same way. But we do believe that fever is the same thing in every case and in every disease, admitting of no comparison, except in degree of violence, or strength of action; and that it is the natural and only way whereby the system could be relieved from that state of disease, for the removal of which the fever is excited. It is probable that the precise degree of fever, could it be ascertained, would be found not to agree in any two individuals laboring under similar diseases.

According to the view which we have taken of fever, it is very evident that its degree, strength or intensity, in any particular case, must be altogether modified by individual circumstances; as for instance, the extent and obstinacy of the cause, the length of time which the disease has continued, the natural energy of the constitution, the particular seat of the diseased action, &c. It appears then not to be of so much importance to learn what kind of fever it is, as to learn the nature and seat of the disease, and to learn the way whereby we can be most useful to nature, by assisting her in her efforts to overcome disease, to re-establish health. In every case of disease to which the attention of the physician is called, there is opened an extensive field for the ex-

ercise of his judgment and skill, in the investigation of its causes, the probable manner of its termination, the best remedies to facilitate a cure, and the most judicious mode of administering them.

CHAPTER VI.

CAUSES OF FEVERS.

IN treating of the causes of fevers, we shall in some measure depart from the beaten track, and take that more consistent and pleasant path prescribed by nature. We shall divide the causes of fevers into external and internal, remote and proximate, natural and artificial. By external causes, we mean all those agents or circumstances by which we are surrounded, and by the influence of which the animal functions are at certain times deranged. By internal causes, we understand such as operate within the system, in such a manner as to disturb the equilibrium of the nervous energy and excitability of the system. Remote causes, are those which produce their effects previous to the commencement of actual fever; as contagion, *marsh effluvia*, cold, humidity and atmospherical vicissitudes. Proximate causes, are such as operate immediately upon the system, in such a manner as to call for and actually excite fever. Natural causes include all external or internal causes which produce disease, and which are entirely out of our agency or control. Artificial causes, are such as arise in consequence of medicine or medical treatment; as from the irritation and debility produced by mercury and some other mineral poisons; also from the shock and weakness which the system undergoes by the loss of blood. Other causes of the artificial kind might be enumerated, among which none would appear more prominent than that of the excessive use of ardent spirits. Did the world know the real amount of pain and misery that it brings upon itself by the use of spiritous liquors, intemperance would be banished from our land---the cause of temperance would be acknowledged to be the cause of virtue and humanity.

That debility is a predisposing cause of disease, and consequently of fever, we presume no one will hesitate to acknowledge. This is the cause of those irregular distributions of vital energy and nervous excitability, which invariably precede the real formation and establishment of all diseases, whether chronic or acute. This state, or a state of debility may be produced artificially, either directly by the abstraction of blood, or indirectly by excessive stimulating; but it is to be noticed, that in the former case the weakness is absolute and of longer continuance; in the latter, the debility being that of over-action, if not carried to a very great extent, is soon obviated by rest. It is a weakness similar to that which the laborer experiences, after having endured the heat and toil of the day. This is effectually obviated by the tonic effect of sleep and rest. But the debility brought on in consequence of bleeding, is of a more dangerous kind, and that which is much dreaded by every judicious practitioner of the healing art. It is what has slain its thousands, and what has doomed as many more to drag out a miserable existence, in the midst of pain and disease.—This is a subject which demands the attention and serious deliberation of every intelligent mind—of every one who regards his own safety and happiness, or the well being of his fellow men.

We have therefore, arrived at the conclusion, that there are a multiplicity of causes tending to disturb those laws of natural order, upon the regular application and performance of which, the health and life of the human system are kept up and maintained; that these causes operate upon the system primarily, in a manner incomprehensible, and consequently inexplicable to the human understanding; that all we know, or the first we know, concerning their mode of operation, is the effect which they make on the system.—We can then trace one effect to another, ascribing each preceding effect to be the cause of that which immediately succeeds it; so that what we call the cause—the proximate cause of fever, is but the effect of some other cause, which itself might be traced in like manner.

CHAPTER VII.

OF THE SYMPTOMS OF FEVER.

So extremely various are the characters of the affections which give rise to fever, that it is hardly possible to include in any one enumeration the many symptoms arising therefrom. We can do no more than to adopt the common system of generalizing, by the advantages of which we may designate classes and orders of symptoms, which are common to all cases, but we cannot descend into genera and species which mark out particular or individual cases; for as variety seems to be one of the first laws of natural order, we not only see it in plants and animals of inferior grades, but we find it equally conspicuous in the highest order of the animal creation. Nor does it seem to be confined alone to materiality, except it be contended that materiality is applicable to mentality. There appears to be as much dissimilarity in minds as in bodies, yet each are alike governed by the laws of universal sympathy. Hence similar causes, acting upon structures and organs possessed of individual and specific differences, must of necessity produce different results; and when this proposition, (which we consider self-evident,) is applied to certain states of the human system, which give rise to a necessity for fever, it teaches us why the symptoms of diseases are so various.

In this place, and to accomplish our present purpose, it will be sufficient to mention some of the leading and common symptoms attending such diseases as are followed with what is termed fever. They are such as chilliness—alternating with flashes of heat, dull and oppressive pains in different parts of the system, impaired digestion, acid eructations, cardialgia or heartburn, costiveness, dryness of the skin, attended with an unusual paleness, sleepiness, and

pain in the head of a heavy kind, weak and contracted pulse, sometimes regular, and at others intermitting, &c.

When these symptoms have continued as long as the safety of the system will allow—nature makes a sensible and manifest effort to rid the system of all the difficulties in which it is involved. This gives rise to what is generally known under the term of fever. We mean accelerated action of the heart and arterics, and as a necessary result of the same, increase of the animal temperature. At this time, we generally observe the tongue to be covered with a coating, termed fur, in regular medical language; and it is, we believe, what is termed canker by Thompson. It is undoubtedly a combination of mucus, and the secretion natural to the part, which from loss of action in the part, have become inspissated, or in other words, have degenerated into the peculiar substance called fur. We have no hesitancy in saying that the whole internal surface of the stomach would exhibit a similar appearance with that of the tongue, could it be examined; this we infer from the doctrine of similar and continuous sympathy. To explain which, we need only observe that the membrane, which lines the tongue and mouth is continued along the course of the *pharynx* and *œsophagus* to the stomach; differing undoubtedly in each of these parts in the particular structure and sensibility, yet retaining sufficient similarity to be the medium of similar and continuous sympathy. So that when the action of this membrane is diminished in one part, it must be in every other part. This is also proved by the loss of appetite, which is always concomitant with a furred tongue.

It may be remarked, that in cases of fever, there is a general suspension of the secretions, and that a restoration of all the secretions is the natural result of fever, and when this result is not produced by fever, either chronic disease or death is the consequence. Hence, we see that people do not die of fever; but of disease, which the fever fails to eradicate. If any one can overthrow this doctrine and establish a better and more consistent one in its stead, we shall consider him guilty of neglect of duty, if he does not do it.

CHAPTER VIII.

TREATMENT OF FEVERS IN GENERAL.

THE indications to be answered in our attempts to remove the proximate cause of fever, are to be drawn from the symptoms present; as the skin is dry, and the mouth and tongue parched, we would at once come to the conclusion that something should be administered, which would have a tendency to restore the action and natural secretion of these parts. To this end the efforts of nature are most evidently tending; by the accelerated action of the heart and arteries, the blood is urged forwards into the small vessels of the surface, accompanied with heat and the influx of vital energy to all the surfaces of the body. By this means the action of the perspiratory system is aroused, sweating is excited and the action of the heart gradually sinks to its common standard.

It ought always to be understood that in the cure of disease, nature takes the lead and points out the way, and it is the height of presumption, for the physician to attempt to take the reins from her hands; he should feel himself sufficiently honored, if he is so much respected by nature, as to be permitted to be her hand-maid, to stand ready at her call, to obey her command. No physician can do more than to assist nature in her efforts to cure; he who presumes or attempts to do more, will be sure to do less. Then if nature is laboring to produce sweating in cases of fever, all that we can do with propriety is to administer such medicine, as is best calculated to determine the circulation to the surface, and thus to induce perspiration; by doing this, we effect several important objects in the cure of the disease; for it is to be observed, that the internal living membrane of the stomach and bowels, is but a continuation of

the skin, and consequently the action of this membrane is increased simultaneously with that of the skin, upon the principle of continuous sympathy. Every physician must admit this from actual experience and observation.

It is not common that we observe much emaciation or wasting away of the flesh, until there begin to be evident intermissions or remissions of the fever. This circumstance may be explained in the following manner. During the time of health, nature, (as if conscious of the accidents which may and frequently do befall the system) prepares a greater quantity of animal materials than necessity requires for the present support of the system; this superabundant matter having undergone the process of digestion and become incompletely animalized, is deposited in such parts of the system as shall give rise to least inconvenience and best answer the immediate designs of nature; it is known by the term *adeps* or fat. In cases of disease where the stomach is so affected as to disqualify it for the process of digestion, and when the powers of the system begin to languish and faint; nature avails herself of this her admirable provision. She commands the heart and arteries to diminish their action, that the action of the absorbents may be increased, in order to take up a portion of the fat, the already partially animalized matter, and carry it into the circulation, to support the vital functions, and to enable nature to persevere in her efforts to relieve the system of disease. When this is understood, it will no longer be looked upon as matter of astonishment that patients frequently live for several weeks without any, or with but extremely little nourishment from any kind of food; during this time the patient is living upon the substance of his own body. It requires but little exertion on the part of the constitution to reduce this matter to its own substance, and still less, to render it subservient to the requisitions of the vital organs.

How admirable are the laws of nature, and how infinitely wise and good is He who framed them! These are useful lessons to man, calculated to make him humble and incline his mind to goodness.

When there are symptoms of particular disorder of the stomach, such as total loss of appetite, thick coating of the

tongue, with nausea and vomiting; this last symptom should be promoted by the exhibition of an active and efficient, yet gentle and safe emetic; it may be considered that we here recommend what is impracticable; that is, an emetic which shall be both gentle and active. But we would remark that these properties in any medical preparation, are by no means incompatible, but very consistent and natural.— Whenever these preparations are formed of vegetables we may apply the terms active and gentle upon the authority of actual experience and observation. It is a well known fact that the action of tartarized antimony, or as it is commonly called *tartar emetic*, is many times distressingly violent, when taken into the stomach as an emetic. It is extremely liable to produce spasms and cramps of the stomach, and sometimes so far produces organic lesion in this organ, as to give rise to inflammation and death. On this account we exclude it from the list of our remedial agents, and give it a place among the incompatibles; that is, we regard it as a violent mineral poison, whose action is incompatible with the safety of the human system. The beneficial effects, produced by the operation of emetics in cases of fever, are by no means to be wholly ascribed to their evacuation of the contents of the stomach; for it is very evident, their operation upon the system is extensive; they powerfully determine the circulation to the surface, and thus excite perspiration. By the contraction of the abdominal muscles in the act of vomiting, the viscera of the abdomen, especially the liver, is compressed, and in this way measurably relieved of congestion; a general shock is imparted to the whole system, which not unfrequently has a highly favorable effect in restoring an equilibrium of action. In an indirect manner, they increase the action of the absorbents by lessening in the natural and proper way, the action of the arterial system.

It is proper here to observe, that the absorbent and arterial systems of vessels, are antagonizing powers; that when the action of one of these systems is increased, the action of the other is invariably diminished. Hence, we observe that in cases of dropsy, the process of absorption is suspended whenever there is high arterial action. Upon this principle may also be explained, the fact, that patients laboring under high

fever, retain their flesh in a remarkable manner for a long time, even though they take little or no nutriment.

Owing to a loss of action throughout the whole alimentary canal, in cases of fever, we find that in such cases, costiveness is a prevailing symptom. Thorough and active *purgatives* are necessary and very plainly indicated to obviate this state. Injections, though they serve many times, as useful and excellent auxiliaries are not sufficiently extensive and powerful in their action, to accomplish what is required of cathartics. The curative powers of *cathartics*, like those of *emetics*, are not entirely confined to their evacuant effects; for besides unloading the bowels of their morbid contents, by increasing their *vermicular* or *peristaltic* action, they stimulate the mouths of the intestinal exhalents, causing them to discharge large quantities of serous fluid, which cleanses and renders more healthy the state of the blood; they arouse the action of the liver, in the first instance, by stimulating the mouth of the *ductus communis choledochus* or common biliary duct which impression being carried to the liver along the duct, through the medium of continuous sympathy, increases the actions of the excretory ducts.

2. They arouse the portal circulation of blood, restoring the secretion of bile.

3. They obviate congestion of the brain, by producing a determination from this organ to the abdominal viscera. This action or effect of cathartics can be explained by taking advantage of the principle of remote sympathy, and of that principle in the animal economy universally acknowledged by physiologists; viz *ubi irritatio, ibi fluxus*, that is, wherever an irritation is produced upon any organ of the body, there will be a flow, or flux of the fluids to that organ or part. This is obvious in cases of external wounds or bruises; as for example—a weight falls upon, and bruises the hand, in a short time there will be an unusual flow of blood to the part, the hand swells, appears red, and feels warmer than natural, a peculiar pulsation, or throbbing is experienced in the part, &c. These symptoms indicate that state of the part denominated inflammation; a necessary and natural consequence of any violence done to the body which pro-

duces *organic lesion*, or a breach in the continuity of the solids.

4. *Cathartics* diminish the unusual action of the heart and arteries, by removing the causes which gave rise to this action. Here, it is proper to observe, that no unusual action or effort takes place in the human system which is under the Government and direction of the laws of nature, other than such as is indispensibly necessary in order to restore regularity and health to the body.

We take the liberty, to make use of the phrase *laws of nature*, from the authority of philosophy; presuming that the use which we have made of it, will be fully sanctioned by every enlightened, liberal and philosophic mind.

5. *Cathartics* excite a gentle moisture of the mouth and tongue, and of the skin; they seem to do this by stimulating the *mucus* membrane of the *intestinal* canal which effect, or impression is made indirectly upon the external surface, through the medium of continuous sympathy.

Considering these effects of *Cathartics* upon the system, their utility in the treatment of febrile diseases must be obvious to all who have a correct knowledge of the pathology of this class of diseases.

We believe that the same arguments which go to establish the utility of *emetics* in the treatment of febrile diseases, may be used with equal propriety, in vindication of the propriety of the use of *cathartics* in the same kind of diseases. The propriety and correctness of administering *emetics* in cases of fevers, are urged upon the evident *facts*, that the action of the stomach is quite lost or very much diminished; that not unfrequently it contains an unhealthy matter which should be thrown off; and in common language it is said (and that very justly too) that *emetics* cleanse the stomach. They also promote perspiration. Now the lining membrane of the stomach is continued throughout the whole track of the intestinal canal. Its action must of course sympathize with the action of the same membrane in the stomach, so that the action of the bowels is lost or diminished. *Cathartics* restore this action—remove morbid contents—promote perspiration, and in common language, “they cleanse the bowels.” It would be well for him who

rejects their use, to study the subject well, for we believe we might with equal and perhaps more propriety, lay aside the use of *emetics*!

In all diseases accompanied with fever, we may observe as a universal and leading symptom, diminished action, and consequently dryness of the skin, that much harm will accrue from the long continuance of this state, cannot appear otherwise than very obvious to every one at all acquainted with the office of the perspiratory system. The cutaneous exhalents may be called the *scavengers* of the human body; which carry off that portion of the circulating fluids, the retention of which, would soon produce disease. It is an essential and well established point in physiology, that the constituent particles of the human body, after having remained in a state of organization and animalization for a certain period of time, become "worn out," to use a common phrase, or in other words, they are so far changed as to render them unfit for a longer continuance in the system; hence they yield to the action of the absorbents, quit their post to make room for new particles, which nature has provided to supply their place. These worn out particles, being taken up by the absorbent vessels, are carried into the general circulation, and thence, through the kidneys and perspiratory vessels of the skin, discharged from the system. In this manner it is supposed by some physiologists, that the entire body is changed for a new one, once in seven years.

By a consideration of what has now been said concerning the use and necessity of perspiration, it will easily be seen how important it is, that the action of the skin should be aroused in all cases where it has been checked from the influence of morbid causes. As an auxiliary to effect this purpose, the warm bath is many times used, and when used at proper times, is undoubtedly of singular service. But the alkaline bath appears to possess much superiority over the simple tepid bath, and perhaps it may be explained rationally as follows: It is well known to anatomists that there are many small glands situated in the skin called *sebaceous* glands; these secrete a fat, or oily substance, which is thrown out upon the surface, probably to soften

the skin and protect it from receiving injury from the air, and other agents. A superabundance of this *natural ointment* is prevented from remaining on the surface by the action of the sweat upon it, but when the process of perspiration is suspended, as it usually is in cases of fever; this oily matter accumulates and becomes *inspissated* or dried and hardened upon the skin, presenting no inconsiderable obstacle to the desired process of sweating; by the use of the simple tepid bath, this substance is not much affected, but by the chemical action and union which takes place between the animal oil and the alkali, the substance may be removed; besides the alkali has a stimulating action upon the skin itself, which tends to promote perspiration by calling the fluids to the surface. Where there is too much debility to permit of using this bath by immersion; it may be used with nearly or quite as much advantage by dipping flannel cloths into the alkaline mixture and applying it to the body by way of embrocation or ablution. Friction upon the surface, even with dry flannel will be found useful; also rubbing the surface with cloths wet with common spirits, where there are symptoms of local congestion as of the brain or liver; warm fomentations or warm draughts made of pulverized mustard and corn or rye meal, should be applied to the soles of the feet and in case of congestion of the brain, to the back of the neck, and over the right hypochondriac region in cases of congestion of the liver. In regard to the patients common drink while laboring under febrile disease, such teas as are made of some kind of diaphoretics, will in general be most proper. Sage, peneroyal, common mint, peppermint, may weed, balm or some other article of similar properties may be infused in water and drank freely either warm or cold, as may best suit the taste of the patient. Where there is high fever and great thirst, and heat of the surface, cold water may be drank, not only without danger, but with much advantage. Experience has proved the truth of the above statement, nor is it difficult to be explained upon physiological principles. The good effects arising from the use of the cold bath, are ascribed to its secondary effect upon the body, viz: that of reaction. Those who are in the habit of bathing in cold

water, know very well, that when the water first comes in contact with the body, they experience a sensation of coldness, which is sometimes so great, as to almost take their breath, but in a short time the water feels warmer, and when they get out of it, and get their garments on, a very agreeable and general sensation, or glow of warmth is felt over the surface, which is not unfrequently followed immediately by a gentle and healthful perspiration.

In the case of the cold bath, the following will go to explain the phenomena or the effects produced by it, as already described. The temperature of the water being considerably lower, than that of the surface of the body; immediately upon submitting the body to the contact of the water, a large quantity of heat is abstracted, which causes the extreme branches of the arteries terminating on the skin, to contract; the blood contained in them, recedes towards the heart, or is thrown upon the internal organs; this is what gives rise to the sensation of coldness, and to the momentary interruption of breathing; but as the temperature of the surface is reduced nearer to an equilibrium with that of the surrounding water, the sense of coldness diminishes, till at length no inconvenience is experienced. In a short time the internal organs begin to exhibit signs of *oppression* from the revulsion of the blood from the surface, upon them. Nature, who ever stands as a faithful sentinel to guard the health of the system, excites the heart and arteries to an increased action, producing for a short time a real fever, which terminates in a glow of warmth over the surface, and gentle moisture; this is what is meant by a reaction, and what is really and properly termed fever, is nothing more nor less, than a reaction of the heart and arteries.—The action of cold water upon the internal surface of the stomach is in all respects similar to its action upon the skin. When the water first comes in contact with the internal coat of the stomach, it gives rise to an immediate sensation of coldness, and reasoning from analogy, it produces contraction in the small arterial branches terminating upon the internal surface of the stomach; but after a little time elapses, an equilibrium is established between the temperature of the water and the internal surface of the stomach. In this

case, as in that of the cold bath, a reaction is demanded to obviate the effects of the primary impression, this takes place, and not unfrequently is carried to such an extent, as to produce a general perspiration.

In order to a clear understanding of this phenomenon in the animal economy, it will be necessary to call to mind the fact that the internal living membrane of the stomach is but a continuation of the skin, at the same time it must be remembered that there is a sympathetic connection existing between the skin and stomach, known in medical language by the phrase, *cutaneo-gastric sympathy*.

It is considered improper to use the cold bath as a remedial agent in cases where there is so great debility or weakness of the constitution as to prevent this fever or reaction from taking place. That is, it is said by physicians of *experience* and *learning*, that whenever a person uses the cold bath and does not experience the glow of warmth, before mentioned, it may be regarded as having been productive of injury; hence very weakly persons should be cautious how they risk the cold bath, since it may be possible that nature is not competent with the feeble energies of the constitution, to counteract the effects of the first impression.— From what has been said of the cold bath in cases of great debility, it will appear obvious that large draughts of cold water taken into the stomach in cases of low fevers depending upon debility, cannot fail to produce injurious if not fatal results. It is only when the fever is *high* and there is sufficient strength to produce *reaction*, that cold water is admissible in such diseases. It is indeed, only when this is the case that the patient craves cold water, and it is certainly an act of prudence and humanity to grant his request.

We shall now bring our remarks upon the reformed treatment of fevers to a close, after merely observing that the different means described as most proper for removing the disease which is the proximate cause of fever, are to be changed or varied and repeated, according to the particular circumstances and necessities of each respective case.— For as every case has something in it peculiar to itself, it is impossible for us to anticipate the natures of these peculiarities, so as to give particular prescriptions for each; this

must be left to the judgment and skill of the physician under whose charge the case may be confided.

For the general *success* of the mode of treatment here laid down, we can appeal to hundreds of living witnesses, who have experienced the treatment upon themselves; and we only ask of those who have not seen this treatment tested, to suspend their decision of condemnation, till experience shall give to them its evidence. We are fully convinced that if there is any truth in medical science, our treatment of fevers is based upon it, and will stand the test of thorough investigation.

CHAPTER VIII.

OF INFLAMMATION IN GENERAL.

THE term, from which the word inflammation is derived, has the same signification as that from which is derived the term fever. Inflammation is derived from the latin word, "*inflammo*" which signifies, "to burn," fever is taken from the latin word, "*ferveo*," which also signifies "to burn."

Fever is defined by Hooper, as follows: "A disease characterized by an increase of heat, an accelerated pulse, a foul tongue, and an impaired state of several functions of the body. The same author in defining inflammation, says: It is a disease characterized by heat, pain, redness, attended with more or less of tumefaction and fever. According to the derivation and definition of inflammation and fever as given above, it will be discovered that they are one and the same affection, differing only in some points of secondary or minor importance. A fever of high degree of action, accompanied with a peculiar appearance and certain changed state of the blood, is denominated a general inflammatory fever; which would be, according to the definition already given, a disease characterized by heat, pain, redness, attended with more or less of tumefaction and fever, which is again characterized by a disease which consists in an increase of heat, an accelerated pulse, a foul tongue, with an impaired state of several functions of the body. This is a fair definition of the disease denominated in the books, "general inflammatory fever," and it shows how much inconsistency and absurdity can be, and frequently are concealed under the specious garb of science and high sounding words.

It is in this way that so much error and such gross absurdities are imposed upon mankind. The abettors of such doctrines appeal to the convincing voice and all protecting

arm of science, for the truth and soundness of their theories. But let these theories be submitted to the test of true and unsophisticated science, and their falseness will be developed; they are based upon false science—upon the imaginations of a bewildered mind, and a perverted understanding.

All true science is founded upon facts which have a real and material existence in nature and in nature's laws. These facts are made manifest to the mind, through the medium of the senses, by observation and experience. Whatever, therefore, in speculative theories, are found to come into collision with these facts, must be regarded as inconsistent with true science, or in other words as super-scientific.

We shall now attempt to give a definition and theory of inflammation, which we regard as having facts for their basis, and observation and experience for their superstructure. By inflammation we understand an increased action of the arteries of the part inflamed, which increased action may or may not extend to the production of an increased action of the heart, according to the nature and extent of the disease of the part. This increased action of the arteries of the inflamed part, is attended with heat, pain, redness and swelling as so many natural consequences. Agreeably to this definition of inflammation, it will be discovered to be nothing more nor less than local fever, which has already been shown to be a sanative or necessary action to remove disease and restore health.

We cannot see how it can be proved to be any thing other than this; and to prove that this is a correct understanding of the term inflammation, we have only to resort to the testimony of observation and experience to convince the unprejudiced and impartial reader; and to satisfy such as build their faith upon the opinions of authors, we shall make a few extracts from some of the most learned and noted, of which the medical science can boast.

In case that a wound is made upon the body, if it be to any considerable extent, there will be experienced in: part, after a certain length of time which cannot be defined, but in individual cases, an evident increase of the action of the vessels of the part; a sensible elevation of heat—a perceptible swelling and redness, attended with throbbing and

pain. This will be confirmed by the experience of almost every individual who has been so unfortunate as to be the subject of wounds and bruises of any kind. After the wounded part shall have remained in the condition above described, for the necessary length of time, the inflammation terminates in adhesion or resolution of the parts in supuration or in mortification. The first of these terminations is most common, and of course most to be desired, and the last, least common and most to be dreaded.

There are many remote causes which may operate upon the body, or upon some particular part, or organ of the body, in such way as to produce either lesion of function, or organic lesion, which is a state of a part designated by the term disease. This diseased state of the part is the proximate cause of that increased action, which we have defined to be inflammation.

It may not be improper here to observe that by organic lesion, is meant a breach of the continuity of parts, a solution of the solids, or a tearing asunder of structures. By a lesion of function, is to be understood, a disturbance produced in the action of any organ. Functional lesion precedes and is the immediate cause of organic lesion, except in such cases as arise from the instantaneous effects of chemical or mechanical agents; such as violent mineral poisons, heat, electricity, and such instruments and substances as may be violently applied to the body.

An unhealthy or diseased action cannot exist in any organ for much time without producing a morbid change in the solids of the part, which changed state is designated by the terms *organic lesion*. What we have here called functional lesion, Mr. Abernethy has called disorder of a part; and what we have called organic lesion, he has termed disease of a part, but we cannot discover any advantages which his terms have over ours; and indeed it would seem that the terms disorder and disease are synonymous, both according to the common use of the words, and the real signification of them. By disorder in a part, we would understand, a deviation from that regular order in the action of a part, which deviation constitutes disease; that is, a state of uneasiness and painful sensation; so that Mr. Abernethy's terms do not

express what he designed to have understood; viz: functional and organic lesion. It is not because we entertain any feelings of disrespect towards Mr. Abernethy, that we here question the propriety of his opinions, for we regard him as a gentleman, highly distinguished for his deep researches into the surgical department of medical science, and as a true philanthropist; we mention his opinions, which we consider as having a particular bearing upon the subject now under consideration; to enforce ours by contrast, and to show that the opinions of even great men should not be adopted, without being submitted to the test of truth.

If what we have already said upon the nature of inflammation, united to the concurring testimony of common observation and experience, shall fail to convince the reader of the propriety and truth of our doctrine, we would ask him to read, with candid and unprejudiced attention, the following extracts, from the best and most respected authors, which are in unison, and go to substantiate our own views upon the subject of fever and inflammation.

Mr. Abernethy says: "That the improvement of the patient's health, is a principle object in the treatment of all chronic diseases, more especially, those which have peculiarly morbid characters."

This expression goes to establish our doctrine of fever and inflammation, since it holds forth the idea, that the probability of a favourable termination of any chronic disease, will be in proportion to the strength and health of the constitution. For it is not possible that the necessary actions for the removal of disease, should take place in the system, if there be not sufficient vital power to support them.

While speaking of inflammation, Mr. John Hunter observes, that "all inflammation attended with disease, have some specific quality which simple inflammation has not; and in such cases, it is the specific quality, which is the disease, and not the inflammation." Again the same author remarks: "Before we attempt to check inflammation, we should have reason to suppose it is going farther than is necessary for a natural cure."

It is evident from the above remarks, that Mr. Hunter did not regard inflammation as a disease. He would not tell us

that before "we attempt to check a disease, we should have reason to suppose it is going further than is necessary for a natural cure." Any action in the system, whose effect is a natural cure, must be considered a salutary action. We have already said that we consider inflammation and fever as one and the same thing, differing only in some points of minor consideration. Inflammation signifies increased action and heat; and this is the true definition of fever, as has been shown. The principle difference between them is, that that increased action and heat, which is usually called inflammation is local, that is, it is circumscribed or confined to a single organ or part of the body; or else the principle increase of action is manifested in some individual organ, while but little increase of action is observed in the general system. What is therefore, commonly termed inflammation, should be called local fever; so that fevers could then be said to differ only in extent and degree.

From Doctor James Johnson, a celebrated English physician, and author of a treatise on derangements of the liver, internal organs and nervous system; also of a work, entitled "Influence of tropical climates on European constitutions, we have the following observations :

"In fulfilling the indications in the treatment of dysentery, we are under the necessity of keeping a strict watch on the operations of nature, and the ravages of the disease. Thus the *symptomatic fever* in dysentery, and indeed, in all other diseases, is, I am fully convinced, a sanative effort of the constitution, to overcome some morbid or diseased impression—to restore some impeded function, or to relieve some oppressed or labouring organ." He then adds, "that he who studies the ways of nature most attentively, will be the most fortunate practitioner."

The term dysentery, is a compound of two Greek words, the one signifying *difficulty*, the other *bowels*; so that the literal sense of the word would be, "a difficulty, disorder or disease of the bowels." In this sense we understand it, and from the extract which is given above, it will be seen that Doctor Johnson regarded it in the same sense; and from this view of it, he recommends that we keep a strict watch on the operations of nature, and the ravages of the disease.

By the ravages of the disease, he undoubtedly meant, that morbid alteration which is going on in the mucus membrane of the bowels while laboring under dysentery; and by the operations of nature he tells us that he means the symptomatic fever, which in dysentery as well as in all other diseases, he considers "a sanative or salutary effort of nature or of the constitution to remove some morbid impression, to restore some impeded function, or relieve some labouring organ." It will be seen that according to the view which we have taken of fever and inflammation; they must be looked upon as being symptomatic in every case. That is most easily proved, the evidences of which are most unequivocal and nearest at hand. That fever and inflammation are symptoms of disease, and that effects or symptoms cannot be antecedent to the causes or diseases of which they are the effects or symptoms, appear to our mind in the light of self-evident propositions.

There never was a case of fever or inflammation in which disease had not a prior existence; or in which disease was not the immediate or proximate cause of the fever or inflammation. If this assertion be true, (and we are fully persuaded that the combined forces of the medical world cannot prove it to be otherwise,) then the unscientific and unphilosophic doctrine of idiopathic or primary fever and inflammation, must be classed where it really belongs, among the ideal world of immaterialities and non-existents. For as has been said before, whatever of speculative theories are found to come into collision with the only true science, (we mean that which is based upon facts drawn from experience and observation,) whatever does not harmonize with this kind of science, will not be regarded as sound and scientific, by men of intelligent minds.

We are aware that reformers will be considered by some, as confiding too much in the efforts of nature for the cure of disease, but it is to be recollected that they are not on this account, led to believe, that they are to remain merely passive spectators of the efforts of nature; but on the contrary they are to use such means as appear most likely to assist, and run parallel with the steps of nature in the cure of disease. In mentioning the principles of treatment of fevers,

Dr. Gregory says: "The most important feature in this view of the subject, is the natural tendency in all febrile diseases, to run a certain course, and to terminate in the restoration of health;" and further, he says: "The natural tendency of fever, to come to a crisis, or to *work its own cure*, may be often kept in view, with the best advantage. The spirit of this doctrine should never be disregarded."

Had Doctor Gregory considered fever as a disease, he certainly would not have discovered its natural tendency to terminate in the restoration of health. Has disease any natural tendency to terminate in the restoration of *health*? If it has, the physician may lay aside the practice of his profession, for if disease itself has a natural tendency to work its own cure, and the efforts of nature are operating to produce the same effect—there can be no longer need of physicians; especially of such as employ means directly opposed to the operations and efforts of nature.

Let every inquirer after truth in medical science, reflect candidly upon the opinions of the great and learned Doctor Gregory, that he may learn whether there be any truth in them. Mr. Hunter says that "fever is a good symptom when equal to the injury." Now in this expression, Mr. Hunter admits, yes even affirms two truths, for which we have been contending, viz: that the increased action, which takes place in injured parts, commonly called inflammation, is a *fever* and a *good symptom*, when equal to the injury. We presume that he means by the phrase "equal to the injury" an increased action having sufficient support from the constitution to continue till the injured part is restored. It is weakness of the system which gives rise to an inequality between the fever and the injury or disease, for the removal of which, the fever was induced. Nature cannot be charged with performing any work of supererogation; that is, she does not excite a higher degree of fever or inflammation than is necessary to the restoration of health; hence in those cases, where it is said that the fever or inflammation is 'too high,' this being a natural effort, we are constrained to ascribe the opinion to error in the understanding, rather than to any imperfection in the undisturbed administration of the laws of nature.

As in fevers, so in inflammations—many different kinds have been mentioned by authors. The first division of inflammation is into two species—*phlegmonous* and *erysipelatous*. The term *phlegmonous* is a derivative from *phlegmon*, which latter word is taken from the Greek, (*phlego*;) signifying “to burn.” Thus *phlegmonous* inflammation is a disease characterized by heat added to another disease which is also characterized by heat! But in truth, *phlegmonous* inflammation is no disease at all; it is only a local fever—a salutary and necessary effort of the constitution to restore the part to health; so says some of the best authors; so says the correct signification of the terms, and so also say experience and observation. The term *erysipelatous*, is a secondary of *erysipelas*, which is derived from, or is a compound of the Greek terms *ereo*, to draw, and *pelas*, adjoining—from the neighboring parts being affected by the eruption; so that the term *erysipelatous* does not specify any quality of the inflammation itself, but merely expresses the fact, that the adjoining parts are affected.

We do not object to the use of such technical terms as are calculated to point out any important circumstance in relation to disease; on the contrary, we say technical terms should be used to designate the characters and locations of diseases. It is to that pompous parade and insignificant connection of such terms, that we object. To that unscientific union of words, which, though from their terminations have the semblance of grammatical correctness; yet when their real meaning is obtained they are found to possess no significant affinity to each other; which proves the fact that many have learned from experience that such a use of high sounding words, only “leads to bewilder, and dazzles to blind!”

This is more especially the case with the young mind, which is very apt to put a false estimate upon words from attending to their sound, and neglecting their sense. Inflammation or local fever has no other modification, than that of degree and place. The accompanying symptoms of a disease which gives rise to inflammation, may vary in many particulars, that is, the swelling; redness and pain may be more or less marked or perceptible, according to

the extent of the remote cause, the specific state of the part at the time it was first subjected to the cause, the particular organ affected, the constitution of the individual and the mode of treatment adopted for the cure. The swelling observable in an inflamed part, is caused by an unusual quantity of fluids in the part. The redness is owing to a dilatation of the small arterial branches and the admission of the red globules of blood into those small vessels of the part; which do not carry red globulus while in the natural state. This pain, experienced in an inflamed part is produced in the following way: as has been stated, wherever there is unusual irritation, there will be a corresponding increase in the fluids of the irritated part, on account of the increased quantum of vital or nervous energy in the part, the sensibility is heightened, and the over distension of the small vessels gives rise to an unpleasant sensation, which is called pain; but this is one of those natural or unavoidable evils, which will finally be productive of good.

CHAPTER IX.

TREATMENT OF INFLAMMATORY DISEASES, OR OF DISEASES ATTENDED WITH LOCAL FEVER.

It is unnecessary to particularize the general course to be pursued in the treatment of local fever, or of a combination of general and local fever; since it would amount to no more than a repetition of what we have already said, while speaking upon the treatment of general febrile diseases. But as local fever or inflammation has some peculiarities which distinguish it from general fever, it is proper that these differences should be taken into the account, while laying out the course of treatment.

In treating disease, we should apply our remedies in such manner as is best calculated to act upon the diseased part. If, for instance, a wound has been inflicted upon the hand, so as to excite local fever or inflammation in that organ, our remedial agents, as far as may be, should be brought to act immediately upon that part; although in this case, some distant organ of the system may be sympathetically affected, yet this slight derangement from sympathy, will be adjusted so soon as the health of the primarily diseased part shall be restored. If there be a diseased state of any of the internal and vital organs, of sufficient intensity to give rise to local fever, the functions of the adjoining organs will be more or less involved in the disease through the medium of nervous sympathy; hence a general reaction or fever will take place; which symptom is denominated in the books, symptomatic or sympathetic fever; but these terms would be more applicable to the general derangement consequent upon the original disease.

The idea which we form of sympathy, carries in itself, the pre-supposition of sensibility; but an action is void of

this property; so fever in itself, cannot be sympathetic, yet an organ of the body, endowed with the principle of sensibility or excitability, may with the strictest propriety be said to be sympathetically affected. Since then, any local derangement of much magnitude, cannot long exist in the system without giving rise to general disturbance, the propriety of combining general with local treatment in such cases will appear obvious.

The means used in the general treatment of inflammations are similar to those recommended in general fever. Such as emetics, cathartics, diuretics and diaphoretics; that is, such medicine as will act locally or specifically upon the stomach, to evacuate its morbid contents, and restore its healthy action. Such as produces its effects by stimulating the inner membrane of the bowels, giving rise to increased secretion of serum and frequent alvine evacuations. Such as exert a direct influence upon the kidneys, causing them to separate larger quantities of the irritating acrid parts from the blood;—and such as act specifically upon the heart and arteries, producing a determination of blood and heat to the surface, which results in a general perspiration. The quantity and frequency of exhibiting these different remedies, must be left to the judgment and skill of the practitioner, who is supposed to be sufficiently versed in medical science to adapt his means in all respects to the special circumstances of each individual case that may come under his treatment.

In many cases of general disease, but more especially in those confined to particular parts or organs, much benefit may be derived from external and local treatment. When any of the external parts of the body are inflamed, the cause of the inflammation, may be effectually removed or very materially diminished by the frequent use of the medicated local vapour bath, also by the application of warm fomentations and poultices to the part; these should by no means be neglected in such cases. Their apparent simplicity is but a weak argument to urge against their utility.—Their effects are not those of a charm, but they will admit of a physiological and rational explanation. In cases of inflammation of internal organs, as the stomach, lungs, bow-

els, liver, &c., much benefit may be derived from the action of rubefacients; that is, such medicines as when applied to the skin, produce irritation and redness without blistering; also fomentations applied immediately over the region of the affected organ, will be found to produce admirable effects.

Those cases of inflammation or local fever which are excited by the application of heated substances to the body as is the case in the burns and scalds, may be benefitted by cold applications, as cloths wet in cold water and laid upon the injured part; here the permanent utility is derived from the reaction produced by the cold application, as is the case with the cold bath; but where the burn or scald is so extensive as to produce great debility or diminution of the powers of life; it would be improper to apply cold, as the constitution would not be able to bring on the necessary reaction. Then in severe and extensive scalds and burns, warm poultices should be applied, and the strength of the system, should be supported by the judicious administration of tonics and stimulants.

It is necessary that we bear in mind this fact, in the treatment of diseases, viz: That by relieving pain, we do not in all cases, weaken disease, for though the pain will always cease when the cause or disease, of which it is a symptom, is removed, yet the disease is not always removed when the pain ceases or is diminished. This is a consideration of vast importance to the physician, it will caution him against placing much confidence in those means which, while they momentarily relieve pain, seriously interrupt the efforts of nature, and thus indirectly strengthen the disease.

From this view, we shall discover that it is not those means which most speedily relieve pain, that we are to regard in all cases as most permanently useful in the treatment of disease. We think this idea should be seriously revolved in the minds of those physicians who deal liberally in the narcotics, and the *lancet*; and who at the same time, indiscriminately, condemn all those who conscientiously differ with them in opinion on this particular subject.

In local *fevers*, as well as in general, it is frequently necessary to administer that kind of medicine which imparts tonicity to the muscular fibre, and strength to the general

system. For though there may be a sufficient degree of strength in the constitution to enable nature, assisted by proper medicine, to affect an equilibrium of the circulation and excitability of the system; yet from deficiency of vital power, each organ may not possess that tonicity which is requisite to enable it to retain its due portion of vitality, or which is indispensable to the continuance of the state of equilibrium, above mentioned. This is the cause which being combined with some external causes, produces those secondary or subsequent attacks of disease called relapses; hence in the convalescent stage of disease, the strength of the system should be promoted by the medicines best adapted to this end; and by diet, most nourishing and easiest of digestion.

Having made these general observations upon the treatment of local fevers, we shall close our remarks on this subject by observing,

1. That it is not presumed that any one is to be qualified for the highly responsible duties of treating diseases, from the knowledge derived from so limited a source as the present essay. It is not our expectation to qualify men by it, for the medical practice. Our object in submitting these general observations to the public, is to facilitate the acquisition of truth upon a subject of great importance to every one who duly appreciates the blessings of health, to furnish materials of thought, to such as love to think for themselves upon subjects which more especially interest them; and also to such as have minds, as well calculated for manufacturing good thoughts, as those whom they have heretofore suffered to think for them; why should we prefer the thoughts made by others, to our own, when we possess as good a thinking machine within ourselves; and equally as good materials of thought, upon the same subject, are within our reach.

2. The medical gentleman will not condemn our remarks, because he does not find in them a minute detail of the different means of cure, times of exhibiting, and quantities for each particular case; for he knows that such changes are to take place in each of the above mentioned particulars as cannot be anticipated, but must depend upon the exist-

ing circumstances of the case; different means are to be employed in the same kind of disease, in different individuals, and in different stages of the disease in the same individual.

CHAPTER X.

AN EXAMINATION INTO THE EFFECTS OF MERCURY, BLEEDING AND ANTIMONY, IN THE TREATMENT OF GENERAL AND LOCAL FEVER.

That each of the means above specified, has been, and is now frequently resorted to, for the cure of febrile and inflammatory diseases, by physicians who profess to have been regularly initiated into the profession or faculty, will not be denied by any one who possesses that knowledge, which the most common experience and superficial observation so abundantly furnish.

That these means are employed by men, highly distinguished for their learning, their natural abilities, their extensive observation and experience; and for their virtue and benevolence, must also be acknowledged. Nor is it without reluctance that we enter into an examination and exposition of the extensive evils and vast amount of human suffering, which have grown out of the erroneous opinions of such great and good men; yet whatever absurdities and errors may be discovered in the opinions, no expressions are designedly made to affect the persons or characters of these men.

We respect and admire true science, disinterested benevolence, republican liberality and the love of virtue, wherever they are to be found. We respect the man who possesses them, whether he be a king or a beggar, a physician, a preacher, a lawyer or a statesman. The proper exercise of these qualities is what constitutes the gentleman; whatever may be his occupation or profession, and whenever we discover these qualities in a physician, however widely he may differ from us, as regards his particular opinions

upon medical subjects; we find him to be a gentleman, ready to receive any information connected with the various branches of his profession; his mind is open to free inquiry into the opinions of those who may differ from his own; he does not condemn and treat with contempt, both the persons and opinions of all those whose minds view things in a different light from his. In the society of, and by conversation with such a man, we derive not only interesting instruction, but peculiar satisfaction and delight, even though he be not of our particular opinion.

That every physician ought to possess the character just described, was the opinion of some of the most eminent medical and surgical authors. The amiable and benevolent Dr. Thatcher, while speaking of the character, qualifications, and duties of a physician, observes: "The man who maintains this important station, should possess the strictest integrity of character; disinterested benevolence and philanthropy should be interwoven in the constitution of his nature. He should possess that modesty and humanity, which melts at every distress; extending the hand of relief and comfort to the afflicted, especially to 'the widow, to the fatherless, and to him that hath none to help him.' He should devote no less attention to the bed of helpless, pinching penury, than to the sickly couch of wealth and luxury; and mingle a sympathizing tear with those, whether rich or poor, who are called to shed the tears of inconsolable sorrow. Whilst manifesting an ardent zeal and solicitude for the welfare of his patients, and devoting all the energy of his soul to their service and comfort; he is not to be actuated by the sordid motive of acquiring fame or emolument; but by the irresistible dictates of that tenderness and sympathy which have their origin in the best feelings of the heart. To these meritorious qualities, should be added, an acute, penetrating genius, a retentive memory, intuitive discernment, and an intrepid and decided disposition of mind."

The character here portrayed, it must be confessed, is of no ordinary cast, nor is it frequently exemplified; but such was the great Hippocrates; such was the pious and sagacious Sydenham; such the illustrious and learned Bœrhave and Cullen; and no less deserving the applause of man-

kind, were those luminaries of American medicine: Rush, Miller, Warren and Barton; the pride and ornaments of our own age and country.

Every physician should be distinguished for his professional knowledge and attainments; recollecting that literary diligence, when accompanied with original genius, is the parent of all that is great and valuable in science, and that even men of tolerable capacities, may with proper application and industry, produce valuable acquisitions, and render themselves conspicuously useful. To excel in the profession of medicine, and to practice with success and reputation, requires indefatigable industry, and a vast variety of liberal accomplishments, as well as an understanding improved by knowledge and experience.

"It would seem impossible to contemplate the mechanism exhibited in the formation of the human frame, without associating the most exalted sentiments of piety. Our existence is indeed a continued miracle; capable of being sustained only by the hand of that Omnipotent Being, whom we adore, as "the former of our bodies, and the father of our spirits." From the striking proofs of divine wisdom and benevolence, displayed in the animal structure, may be derived, arguments not only the most numerous, but the most clear and decisive, and the best calculated to confirm the sentiments of rational piety, and to induce habits of active religion and piety." In more than one sense, the judicious poet is correct, when he asserts, that:

"The proper study of mankind, is man."

Those, however, of cultivated understandings, and minds enlarged by the exalted principles of religion, will not readily yield themselves bigots to any particular sect or religious system; but exercise christian charity, piety, brotherly love and universal goodness, without wishing to offend others, who may differ from them.

"The study of medicine," says the amiable Dr. Gregory, "of all others, should be the least suspected of leading to impiety. An immediate acquaintance with the works of nature, raises the mind to the most sublime conceptions of the Supreme Being, and at the same time, dilates the heart with the most pleasing views of Providence. There

are besides, some peculiar circumstances in the profession of a physician, which should naturally dispose him to look beyond the present scene of things; and engage his heart on the side of religion. He has many opportunities of seeing people, once the gay and the happy, sunk in deep distress; sometimes devoted to a painful and lingering death; sometimes struggling with the tortures of a distracted mind. Such afflictive scenes, one would imagine, might soften any heart, not dead to every feeling of humanity, and make it reverence that religion, which alone can support the soul in the most complicated distress; that religion which teaches to enjoy life with cheerfulness, and to resign it with dignity.

“Among the virtues peculiarly required in the character of a physician, are those of temperance, sobriety, and probity. Temperance is the only panacea known in medicine, and the professors of health should enforce the instructions of temperance, by the eloquence of example. Of all the disgustful objects ever admitted into a sick chamber, a drunken physician is incomparably the most odious; and he who sustains this character, ought never to receive the least countenance in the line of his profession.

“The noble and disinterested sentiments of the venerable Sydenham, as expressed in the following language are worthy of being adopted by every physician. “Upon deliberate reflection, I find it better to assist mankind, than to be commended by them, and more highly conducive to tranquility of mind; popular applause being lighter than a feather, and less substantial than a dream. I have always thought it a greater happiness to discover a certain method of curing even the slightest diseases, than to accumulate the largest fortune. For can a person give a stronger proof of his benevolence and wisdom, than by endeavoring always to promote the public good, rather than his private interest, as he makes so small a part of the whole! I am determined to give myself little concern for the failings of others, being convinced that all that is incumbent on me is, to act like an honest man, and discharge the office of a good physician to the best of my abilities.”

“The education and course of life of medical men,” says Mr. Abernethy, “tend to make them sober minded, moral

and benevolent, and their professional avocations equally require that they should possess such characters. On no other terms can they be admitted with *confidence* into the bosom of those families which may require their medical aid. Whoever, therefore, inculcates opinions tending to subvert morality, benevolence and the social interests of mankind; deserves the severest reprobation from every member of our profession, because his conduct must bring it into distrust with the public."

Thus much, for the opinions of the great, in medical life; concerning the proper character of the physician, and the natural tendency of the study and practice of the medical profession upon the mind and heart.

That the exalted and highly dignified character above described, has been exemplified in many physicians of past ages; we fully believe, nor are we less compelled from evidence to believe that such characters are to be found among those of the profession in our own age. We therefore repeat that whoever possesses such a character; we do, we must respect, without enquiring whether he be a physician, a preacher, a lawyer, a statesman, or a private citizen. Whatever physician may be found to have this character, however widely he may differ from us in his opinions on medicine, we respect him as a citizen, and as a physician, and far be it from us, to say any thing, in our present remarks, with an intention to injure the reputation, the interest or feelings of such a man.

CHAPTER XI.

ON BLOOD LETTING.

Can the practice of bleeding, for the cure of general and local fevers be sustained upon the testimony of correct pathology, sound physiology, careful observation, and true experience? In order that a person may be qualified to give a correct decision in regard to the merits of this question; it is indispensable that he conceive just notions of fever itself; that he have a true knowledge of the nature of disease; of the general doctrine of life, and of the nature and uses of the blood, that he mark well what he *sees* and *feels* of disease, and that he be not one of those, who are determined to be ignorant, in spite of experience.

We have made some observations upon the nature and use of the blood in the beginning of this essay, with which, we believe every enlightened man will fully agree. Our theory or doctrine of disease, of fever, and inflammation, we have also given, with some of the evidences and authority for the same. These doctrines are in accordance with the best of our judgment and knowledge; therefore, in forming our answer to the question at the beginning of this chapter, we shall apply the question to these doctrines as a test, and give our answer according to the result.

Any mode of practice in the treatment of fever, which harmonizes with true pathology, with physiology and experience, must be regarded as good, according to our present state of knowledge; if then, the practice of bleeding, is not found to be so parallel with the steps of nature in the cure of disease, as some other known, and practicable means, then we must pronounce it bad.

We have said that there are many remote causes which may operate upon the human system, under certain circum-

stances, in such manner as to derange that regular performance of all the functions of the body, which derangement brings on a preternatural state of body, or in other words, a diseased state. A diseased state of body cannot long continue without giving rise to certain exertions of nature, which are commonly termed fever, and looked upon as real disease; but which are called by Dr. Johnson, a salutary action, or an effort of the constitution, &c.; by Mr. Hunter, a necessary action—a good symptom, &c.; by Dr. Gregory, the operations of nature tending to the restoration of health, the steps of nature in curing disease, &c.

We stated that all the actions of the system, (morbid or diseased actions accepted,) are supported by the life-giving stimulus of the blood. We have now arrived at the conclusion that disease is the immediate cause of fever—that fever is a necessary and salutary action, and that this action is supported by the blood. We must inquire into the immediate and subsequent effects of bleeding to see whether they are such as may be desired in the removal of disease.

The immediate effect of the abstraction of blood, is debility or weakness; this is a fact which all experience proves; nor can it be successfully controverted. The secondary effect of bleeding, is a protracted recovery from disease; also an increased susceptibility of the system to be effected by such causes as are calculated to produce disease.

The first of the above positions is based not only upon experience, but upon the physiological fact, that all the strength of the system is derived immediately and directly from the blood; and hence to pretend that a small quantity of blood may be abstracted without producing a proportionate degree of weakness; would be as good philosophy as to say that one grain of mustard seed makes no part of the bushel or to say that the body contains one, two or three pounds of blood more than is compatible, or proper for its safety or health, is to say that nature performs work of supererogation, to interrupt her own laws. Such opinions would do but little honour to men of sense. Bleeding reduces the force and frequency of the pulse; that is, it diminishes the action of the heart and arteries, and thus reduces fever. Well, says one, if bleeding reduces the fever, it

must be good. But stop, what is fever? O! I had forgotten, that I read in a former part of this book, that fever is a necessary and salutary effort of the constitution to relieve some oppressed organ, to restore some impeded function, to remove the disease. Well then, bleeding is not good simply because it reduces fever. But does not bleeding remove the blood which is most impure and which is consequently a cause of disease?

We are fully aware that many are honestly of this opinion, but wherever we find a physician holding out such an idea to the people, we are obliged to lay one of these things to his charge, viz: that he is unpardonably ignorant, of the true knowledge of his profession, or else, he is wilfully dishonest, or in other words, is willing to sacrifice the health of his patient to his own interest. Foreign or extraneous matter is only mixed mechanically with the blood, not chemically combined with it. Where the secretory functions are suppressed, as that of the kidneys and skin, that matter or fluid which should have passed off, by these secretions, is retained; mixed with the general mass of the blood, and produces unusual irritation. The proper way to purify the blood in such case seems to be the way which nature takes; that is, to restore the action of the skin, thus producing perspiration; and the action of the kidneys, thereby separating more of the unhealthy particles from the blood.

Now we will suppose that there are twenty-eight pounds of blood in the body, and with this is mixed four pounds of impure fluid from retention. Now we take one pound of blood, and we remove but one twenty-eighth part of the morbid matter, at the same time taking away the one twenty-eighth party of that strength, of which the patient may stand in the greatest need. But says one, the doctor says, "it is the bad blood which he draws," and I think he is correct, for on watching the operation of bleeding, I have frequently noticed that when the blood first begins to flow, it is quite thick, and looks dark and clotted. All this may be true, and frequently is, as respects the appearance of the blood; but let us look into the cause. It is customary, previous to opening a vein, to apply a ligature around the limb between the point to be punctured, and the heart, for the

purpose of retarding the blood in the veins, and thus rendering the vein to be opened, more conspicuous and prominent. The blood contained in the veins on the side of the ligature more distant from the heart, by being obstructed, looses its colouring matter, by uniting with a larger quantity of the carbon of the animal substance; hence it becomes darker, and by its quiescence, partially coagulates, forming the small clots before mentioned.

Therefore, when the blood begins to flow, upon the opening of the vein, it looks dark, &c.; but after it has flowed sufficiently long, to remove that portion which had been retarded by the ligature; it appears of a brighter red, no clots are discovered, and all conclude that the bad blood is all drawn off, and consequently it is time to stop—yes, we agree with them, it is time to stop—to stop such absurdities, such imposition, and such sacrifice of life! If the blood abstracted by venesection differs at all from the general mass of blood, we would be led from certain circumstances, to believe that it is the better portion of the blood.

It is well known to physicians that in many diseases, there are very frequent local determinations and congestions of blood in different organs, as the brain, the lungs, the liver, &c.; of course, the congested or stagnated blood, ceases to give that stimulus and strength to the system which is usually imparted by this fluid. Then the only dependence which the constitution has for strength to support life and to make the necessary efforts to remove disease, must be solely derived from the circulating and vivifying blood; it is the blood which is in active circulation, (except the obstruction caused by the ligature,) that is drawn by venesection; hence according to the reasoning above, it must be a portion of the blood of the better quality, that is drawn off by the *lancet*.

Though bleeding, when it is performed during increased action of the heart and arteries, invariably reduces this action for the time; yet it is known to have a different effect if performed at the time when the action of the heart is below par, from the oppression of general disease, concussion of the brain, suffocation from gases, &c. In these cases, bleeding increases the action of the heart and arteries by

accelerating the febrile action, or forwarding the process of a reaction? Well then, says the believer in bleeding, you have established the propriety of blood-letting in this state of the system, upon your own principles; for you say here, that bleeding increases the action of the heart and arteries, when performed under the above described circumstances, you say also, that it accelerates the accession of febrile action, or forwards the process of reaction: you have said that this febrile action or reaction is a necessary and salutary action or effort of the constitution, tending to the restoration of health! Now agreeably to all this, it seems to me that bleeding must be good; for if the fever is a salutary action, tending to remove disease, it cannot come on too soon, when there is disease existing in the system, the sooner it commences, the sooner the restoration of health will be accomplished. Now we look upon this kind of reasoning, as arising from a very superficial examination of the subject; and under no other examination of it, could such a series of reasoning appear even in the slightest degree plausible.

In order to form a correct decision as to the merits of any question, it is not enough that we examine and bring forward all the evidences which can be found to favour one side of the question, which we might, from a superficial view, think best supported; but we should also examine and weigh well the arguments against this side.

We have already observed, that all diseases consist in either functional or organic lesion; and that their immediate consequence upon the system, is oppression of its organs, and depression of its general strength. We have also remarked that a natural fever or reaction, on account of the existence of disease, does not take place, until the disease is so extended, as to endanger the immediate safety of the individual affected; that is, fever does not take place, so long as there is sufficient strength and vital stamina in the constitution; to bear up under the oppressive influence of disease. Hence the interval, between the primary application of an efficient morbid cause to the body, and the commencement of the reaction or fever, designed to remove the effects produced in the body, by the operation of the external morbid cause, will be longer or shorter in proportion

to the extent or intensity of the cause itself; and the strength of the system at the time. Nature suffered to take her own course, always starts at the best time and under the most favorable circumstances.

To illustrate our idea, we will suppose an individual to receive a fall from some considerable eminence; in which he strikes upon the feet in such a manner as to produce no external wound, but as soon as he comes to the ground he falls apparently dead.

This is a case of concussion of the brain; that is, the brain is so much jarred by the fall, as to cease in a measure, to perform its usual function. The equilibrium of the circulation is disturbed; a congestion of blood takes place in the brain, and perhaps in some other of the internal organs. Now, though this is very oppressive to the system yet from the vigor of the constitution, the system is enabled to bear it, and still perform the vital functions sufficiently to support life; till nature shall have prepared her means, so as to make her efforts of restoration, under the most favorable circumstances.

But if bleeding be resorted to, a degree of debility is thereby produced, which incapacitates the system for the endurance of the derangement, till all would, (except for bleeding) have been in readiness for the work of reaction.

Thus we find, that by bleeding, we give rise to the necessity of a premature accession of fever; we also diminish the strength of the constitutional efforts or fever, and at the same time add to the strength of the disease. If it is not the vital energy of the system which stays the ravages of disease, we know of no property in animal matter from which disease can meet with any resistance.

Mr. Hunter says: "that bleeding increases irritability, and causes an increased disposition to act, without the power to act with." The way in which bleeding increases irritability, is this; that it produces direct debility. When it is said that a part or the whole body is irritable, it is meant, that such part, or the body is much affected by slight causes; there is so much weakness, as to disqualify the part for resisting slight attacks. In this state, the body corresponds with the mind of those persons, who get angry from slight

and trivial causes; such are said to have irritable tempers or minds, and every body knows that this irritability of temper arises from weakness of mind.

Bleeding causes an increased disposition to act, since it increases the weight of the disease by diminishing the strength of the one who bears it. The same load that would be regarded as light, by the strong man, would be declared by the weak man to be insupportably heavy; and if the burden were to be carried to a little distance by the weak man, he could not stand and hold it, till the obstructions could be moved out of his path, but he sees that his only alternative is to make onwards; and from his being weak, the burthen heavy and his path rough, he probably falls before he gets half way; he is no more able to raise the load, no, not even to raise himself. Not so with the strong man, he stands with his load on his shoulder till some one (the physician,) goes and moves the obstructions out of his way; he then advances with firm and sure steps, arrives at the destined spot, throws down his burthen, and is free and ready to attend to his business. In speaking of the weak man, it should have been observed, that should he get through, and throw off his burthen, still he is so much exhausted as to require much tonic medicine and a convalescent stage of several weeks.

“Bleeding increases the disposition to act, without the power to act with.” Suppose a hungry person, just to sit down to a table furnished with food agreeable to his taste; but there is only enough for his present necessity; now suppose one to come and begin to carry off the food from his table; would not his disposition to act, be increased, without the means to act upon? He would see that his only chance would be, to make sure of all he could, while it is going.

So when the human system is labouring under disease, and some wise son of Esculapius comes and begins to abstract the blood; the disposition to act is increased, because the system seems sensible that a certain effort must be made, and that her power of making it is going. Nature therefore makes the attempt; but too often finds her resources deficient, from loss of blood. But say our brethren of the

bleeding faith, we know that we can reduce fever and inflammation by bleeding, sooner than by any other means. We admit that this assertion is correct; but it is one of the strongest arguments, which can be used against the very mode of practice, for the vindication of which it is urged. For every one who has a correct view of fever and inflammation, (which we call local fever,) must see, that they should not be reduced, till the disease, for the removal of which they are excited, shall be subdued. So bleeding does not effect the desired object, it only does it apparently. Though the removal of disease is invariably attended with a subsidence of fever, yet the reverse of this, in no case, can happen.

If an individual discovers that his health is somewhat deranged, the natural desire to live, together with the recollection of the enjoyment of health, prompts him to make an attempt to restore health. He sends for a physician of the *regular* order; (because he desires regular treatment;) his physician comes, and after feeling his pulse, viewing his tongue, and making some inquiry of the state of the bowels, pronounces his patient to be sick of a fever; if the fever be high, the physician recommends his patient to be bled; upon being bled, the pulse sinks, the strength fails, the fever is diminished or weakened, and the disease strengthened.

From such harsh and presumptuous treatment nature retreats, but as soon as the doctor is gone, nature marches forward to prepare for action. She finds her resistance is greater and her resources less, but still she feels and knows the necessity of immediate action; she accordingly musters all the force in her power, by going to the different organs of the body, and with all the force and beauty of native eloquence, represents the oppressed and suffering condition of the general system. She succeeds in enlisting as many volunteers as each organ, consistent with its own immediate safety, can spare; she concentrates these volunteers, (a portion of the strength of each organ,) into a common army, marches them into head quarters, and then places them under the command of the heart; the operative commander-in-chief of the arterial and venous regiments. The heart, without delay, leads the army into the field of action; the

disease, the opposing army, is strong, and well disciplined, under the command of morbid contractility; the action commences, it is warm and nearly equal; after a while, owing to the superior skill of the heart in military tactics, nature's army begins to gain ground; nature, at a distance, looks on with the rejoicing of hope; at this time, all bids fair for victory, on the side of nature's army; but at this instant, the eye of nature beholds at a distance the approaching doctor; in a moment the scene is changed—a cloud of gloom hangs over the prospects, which, but the minute previous, shone with promising brightness. Nature is too well acquainted with the common course of the doctors in treating disease, not to sicken at once by the anticipation of the consequence. The doctor arrives; he finds that nature's forces, (the fever,) are still active and tolerably strong; he bleeds, thus taking away from the right wing of nature's army a strong and much needed company; the enemy takes advantage of the weakened part, and rushes onward; the only chance on the part of nature is a retreat; she gives orders to the heart, the chief commander of her forces, to save the army by a speedy retreat; this is done, the enemy advances and takes possession of nature's ground. All this, the doctor says, is favourable; but nature feels the oppression of the enemy, and after calling the roll, arranging her army, and refreshing it by means of the absorbent system, marches them once more against the enemy; knowing the strength of the enemy's army, and feeling the weakness of her own, it is but with the smallest encouragement that she can urge her commander, (the heart,) onward to the contest. In a little time, the opposite armies meet; the action commences; every moment lessens the chance of nature's success; the enemy advances with firm and undaunted steps; nature's army becomes alarmed on account of its weakness; all, all is gloom and darkness; a few of nature's friends, standing at a little distance to behold the issue, seeing the success of the enemy, begin to shed the tear of disappointed hope and total despair. The enemy rushes on, there is no chance for a retreat; nature gives command to surrender, even to an enemy from whom she expects no quarters; the enemy slays the prisoners and demolishes the citadel—all is gone

Death has closed the scene. This is the termination of thousands of nature's contests with disease, which but for the practice of the physician, would have terminated successfully. We appeal to the experience of the candid and impartial reader, for a confirmation of this assertion. Say friendly reader, how many of your friends, relatives and acquaintances, think you, have sunk into a premature grave, in consequence of being bled when sick? Be candid and rational; you cannot be otherwise, when you know, that your own life and happiness are to be involved in the issue of your conclusion.

We are fully convinced that a number of our acquaintances and friends, yea, even of our nearest and dearest relatives, have fallen early victims to the doctrine of bleeding. We would cast no reflections upon their physicians; it was done by them with the intention of good. Some little knowledge I have of the effects of bleeding, by personal experience. A number of years ago, while residing in my native State, (New York,) at my father's house; I was taken with the premonitory symptoms of fever. After being indisposed for several days, the physician, (who at the time was tending upon my brother, who lay sick, not of fever, but for the want of it,) was requested to prescribe for me; the first thing which he gave me, was a dose of calomel pills; their operation produced a considerable weakness, so much indeed, that I was obliged 'to give up, and go to bed,' to use the common phrase. I was now really sick, and nature knew it and felt it; she accordingly, in her kindness, made an effort to relieve me, by increasing the action of the heart and arteries, in order to restore the action to the general system; but unfortunately for me, while nature was making this effort, my excellent doctor came, he felt my pulse, it was quick and strong, my skin was hot and dry, my tongue furred and parched, and in fact I had a high fever; he said I must be bled, and what was still worse for me, he had not forgotten to bring his lancet; he bled me, I became faint and very weak, my heart and in fact whole system become more oppressed, my fever, unhappily, was much reduced; and for four weeks, I lay in an almost helpless state, under a course of mercury, or in more fashionable language, of cooling

powders. But as good luck would have it, my physician was one of those sensible men, who know that when there is but just strength enough in the body to support life, if any strength is taken away the patient must die.

When the doctor saw this to be my situation, he ceased giving me any more harsh medicine; and by taking some mild and nourishing drinks, and some warm teas, which were administered to me by the hand of some kind and dear friend, my strength was increased, and I gradually, after a long convalescence, recovered.

In complimenting the doctor for his good sense in withholding his strong medicine, I should have said, that after I had become very weak, my aunt told the doctor that he must give me nothing harsh, for my weakness would not permit. In giving this account, I should not do justice to my own feelings, or to the kind and generous doctor, if I neglected to state, that he acted the part of a benevolent man towards me, and undoubtedly did the best he could under existing circumstances. I mean that he did according to his best knowledge and judgment; and for his kind attention and solicitude for my welfare, I shall ever cherish for him a grateful remembrance.

My brother, who was sick at the same time, lay about eight weeks; was reduced to the very threshold of death; but from being about 'given up' by the physician, on account of his recovery being despaired of, he had a little respite from medicine, during which time, nature being unmolested, overcame the disease. A dear sister was sick at the same time; she was bled, and she lay about three months under a mercurial treatment and died; alas! she fell a victim—an early victim to calomel and bleeding!

These, gentle reader, are truths, which will remain when you and I shall have embarked for a more hospitable and friendly shore, a more calm and peaceful realm, and when the life-killing and heart-chilling practice of bleeding and mineralizing shall be buried in deep oblivion. But bleeding is fashionable, and some are determined to be fashionable at all hazards. It is a vulgar saying that one might as well be out of the world as out of the fashion, and were there any sense or truth in the expression, then to be in

fashion, in this one respect, would be as bad as to be out of it. But what is the *modus operandi*, or manner in which bleeding acts, in the removal of the disease? Who is able to tell us? We must say that we have never seen even a plausible explanation given concerning its curative powers, in our reading; and we believe we have carefully studied and read those authors on practical medicine and surgery, who most boldly and strenuously advocate the practice of bleeding for the removal of febrile and inflammatory diseases.

The fact is obvious, that bleeding is a mode of practice, which, when used for the cure of disease, admits not of a rational explanation, nor will physicians attempt to explain its effects to men of enlightened and experienced minds.

They may say, that bleeding is an ancient practice, and that it has been sanctioned by men of much learning and experience, and that this is sufficient authority. But the march of science and truth have condemned many of those practices which were thought proper in ancient times. As well might we say that it is right to worship idols because it was customary in ancient ages; and we might add even too common in our own day and country; for whether is it better to worship the sun, moon and stars, or to worship wealth, fashion, fame and worldly applause?

Well, says my friendly and well disposed reader, from what you have said on the subject of blood-letting, I am disposed to regard it as a bad practice in general, yet I think you must admit that bleeding is good in some few cases; such for instance as pleurisy and cases of violent bruises from falls and blows. No, kind reader, we cannot admit that the abstraction of blood is good practice, in even these cases. To agree with our fellow-men in sentiment, feeling and mode of thinking, when such sentiment, feeling and thinking are agreeable and consistent with reason, and productive of general good and happiness, is a source of much gratification to an improved and virtuously directed mind. But whenever we discover that our fellow-men are laboring under unreasonable and erroneous impressions or sentiments, to agree with them in such sentiments, would be hypocrisy, not wisdom; would be vicious, not virtuous; and

would excite the sensation of an admonishing and condemning conscience, not the peaceful delights of conscious goodness. Pleurisy is an inflammatory disease, that is, a diseased state of that delicate and finely organized membrane, (the Pleura,) which lines the internal parietes of the thorax or chest, and forms a complete envelope for the lungs. This diseased condition of the Pleura necessarily demands and gives rise to inflammation, which, through the medium of universal sympathy, affects the whole arterial system, and therefore comes under the head of general fever.

It is well known by all who have been the subjects of this disease, that it is one of excruciating pain and almost insupportable suffering. The acute pain arises from distension of the pleuritic arteries and veins, increased and morbid sensibility, and the unavoidable dilatation and contraction of the lungs in performing the function of respiration. But this pain is only a secondary and, necessarily, consequent symptom; that is the inflammation. Nature's efforts to remove the disease could not be performed, but at the expense of this severe pain. We must recollect that the part affected is highly sensible and constantly agitated by the motion of the lungs; the causes, (we mean the immediate causes,) which produce the pain, are absolutely requisite for the adjustment of the derangement; hence the pain must be regarded as a partial and necessary evil, which is more than counterbalanced by the good which grows out of the direct causes that excite the pain.

From what has just been said, we come to the conclusion, that means may be used in the treatment of disease, which relieve pain, but strengthen disease. So in pleurisy, bleeding generally gives speedy relief, since it produces a vacuum in the vessels of the bleeding vicinity; thus making room for some of that blood, which should and would have gone to the affected part; but how long would this relief from pain continue? The answer is obvious, viz: just long enough for the vacuum to be filled, and the blood to be again (and necessarily too,) injected into the arteries and veins of the pleura. Then, when nature commences her efforts to relieve the oppressed organ, the pain, as an unavoidable consequence, returns. If the doctor is present, he bleeds

again, and gives relief for the moment in the way before explained. Should nature once more be able to make an effort, as sure as the doctor finds it out, he bleeds. Now if any one wishes to know the result of such practice, let him call to his mind the cases of pleurisy which he knows to have been treated in this manner, and then tell me, if such patients have not been doomed to a speedy dissolution, a long convalescence, or to a slow, sluggish and ineffectual fever, (termed by the books, typhoid pneumonia,) or in simple language, disease of the lungs, accompanied with the ineffectual and puny efforts, which nature makes after being deprived of her strength.

The result of what we have said upon bleeding in cases of pleurisy is, that pain in all diseases is a consequent and unavoidable symptom; that the degree of pain will be proportioned to the degree of sensibility in the affected part, and the extent of the disease; that pain may be relieved, without removing disease, and that in all these cases there is danger that the relief is purchased at too dear a rate; that bleeding though it may, and frequently does give temporary relief, never fails to add strength to the disease by weakening the vital powers of the system; that there is no more propriety for bleeding in cases of pleurisy, than in any other inflammatory affection of the internal organs. In cases of severe falls and bruises, it is customary for physicians to bleed immediately; and the custom is sanctioned by the common consent of thousands; but we appeal to those physicians of modern education, for a refutation of this practice; they know it is condemned by the greatest and best authors on modern surgery. When a blow or fall is first received, it produces general oppression, which can only be obviated by a reaction; bleeding protracts the interval between the reception of the injury and the commencement of the reaction or fever, and necessarily renders the reactive effort less effectual when it does come on.

Authors have recommended that bleeding be delayed till a reaction takes place, and then let the bleeding be in proportion to the strength of the reaction. We would strongly recommend, that in all such cases, bleeding be delayed till reaction takes place, and then (unless we presume to know

more in such matters than the Governor of nature's laws,) not bleed at all. The equilibrium of the circulation is deranged or destroyed by the blow or fall, and the reaction or fever is all that can restore it. Those physicians, whose practice it is to bleed in cases of concussions from falls and blows, are either self-sufficient in knowledge, or else their minds have not kept pace with the acknowledged improvement of their science.

Dr. Thatcher, (a warm advocate for the practice of bleeding,) speaking of it under the head of the general treatment of fevers, says, a cautious and deliberate consideration of numerous and variant circumstances, is requisite in determining on the propriety of abstracting blood from the general system in fevers, since the diminution of that fluid, which is the immediate *pabulum of life*, cannot be a matter of indifference to the constitution; if it be the most powerful means of influencing the vital actions, so it is the most dangerous, when improperly employed; if the most effectual in diminishing excitement, it is consequently the most apt to exhaust the vital energy. We have no infallible index to direct us; it is impossible, from the state of the circulation in the fever, to point to any certain criterion for the employment of the lancet; the state of the pulse is often ambiguous and deceptive. These circumstances require the nicest discrimination, as the result is often very different in cases seemingly analagous. A precipitate decision is fraught with danger, and a mistake may be certain death.

Typhus, which is the fever most prevalent in our climate, under all its modifications and forms, is attended with great general debility; and as exhaustion of vital energy soon ensues, it is obvious that to diminish the quantity of the vital fluid, must be to increase that dangerous state of the system which accelerates the fatal termination. Various, therefore, are the circumstances to be taken into view, and great is the diversity of opinions to be examined, in order to a right decision of this difficult point in practice.

It is admitted here by Dr. Thatcher, that there is no certain criterion, whereby we can determine the propriety of bleeding, and in this sentiment we must cordially agree with him; for it appears to us impossible to point out the

propriety of a practice which has no propriety in it. He says also that it, (bleeding) is a dangerous practice; that many circumstances are to be taken into the account in deciding the point; and from what he further tells us, we would think that even the best qualified and most experienced might sometimes make a mistake, come to an incorrect conclusion and thus hasten the fatal termination.

But if this language of Dr. Thatcher's be true, respecting the obscurity in which his supposed propriety of bleeding is involved, can we reasonably suppose that the superficial knowledge, and of course non-experience of the young medical fops, or rather self-styled regulars, who are poured forth upon the world, with their unbounded confidence in calomel and the lancet, are sufficient to direct them to a proper decision of this point of practice? No, they are not qualified to decide, according to Dr. Thatcher's own sentiments. Our reader will, we think, conclude with us, that physicians, especially the young, who have not yet learned the bad effects of bleeding by experience, do frequently make "precipitate decisions which are fraught with danger, and mistakes which may be certain death." But what must be the consequence of that indiscriminate use of the lancet and calomel, which is practiced in the southern states by planters and overseers, who are as little acquainted with the science of medicine, as a native African is with that of astronomy or navigation. Can the consequence be any other than that of human sacrifice? This must be the inevitable result.

Then we ask of our candid reader, will you adopt the practice of bleeding, and for any little indisposition, which you may feel, run the risk of having part of your very life taken from you? If physicians will persist in a practice which is so destructive to life and so repugnant to reason and common sense, will you not rather act and think for yourself?

We shall here give a few remarks on the subject of blood-letting, made by the learned and experienced Dr. J. F. Daniel Lobstein, of the medical faculty at Paris, late physician of the military hospital and army of France, member of the medical societies of Philadelphia, of the city of New

York, of Massachusetts, of Maryland, of Lexington, (Ky.) of New Orleans, of Pittsburgh, Pa., of many others of Europe, and of several learned and benevolent societies of the United States, author of several works on medical and literary subjects, physician and practitioner of midwifery in the city of New York.

“For the life of the flesh is the blood.” *Lucretius*, xvii. 21.
 “A long time has elapsed, since I determined to publish my remarks on the pernicious effects of bleeding, which not only during that time, but especially at present, is considered as almost a universal remedy, and frequently resorted to as a restorative in the slightest indisposition; notwithstanding the direful consequences attendant on such practice, it continues to be the main pillar of the medical profession. Were bleeding and mercury totally prohibited, a great many physicians would find themselves in the inextricable mazes of a sad dilemma; their time easily disposed of. It is astonishing to find that so many persons, and still more astonishing, that so many physicians have fallen into this extravagance. Blood, as the most precious matter for life, is lavishly squandered where there is no necessity; yes, often without knowledge for what purport.

“My remarks shall therefore convince my fellow-citizens, that so far from blood-letting being beneficial, it is productive of the most serious and fatal effects. Should I contribute by these remarks, to save more lives in future and arrest this cruel practice, I would feel that gratification, which arises from the consciousness of having performed a good act. How much is it to be regretted that such an awful scourge of humanity should exist.

“During my residence of fourteen years past, in this happy country of liberty and independence, I am bound to say that in all my practice of twenty-seven years as a physician, never have I seen in any part of Europe, such extravagance of blood-letting, as I have seen in this country. How many thousands of our fellow-citizens are sent to an untimely grave! how many families deprived of their amiable children! how many husbands deprived of their lovely wives! how many wives of their husbands, who have fallen victims to bleeding, and the same may be said of mercury. We no

more count the loss of blood, (by bleeding) by ounces, but by pounds. Each head-ache, each indisposition, is among physicians quite a sufficient pretence to say, "*you must be bled.*" In the blood is the human life; in the blood is placed the strength of the whole organic life; without blood there is no heat, no motion of the system; yes, take away from the brain the blood, and the self cogitative powers will be instantly extinguished.

"Is it not evident that the most robust persons, are such, because rich in blood? Certainly it is not such persons who are attacked with nervous weakness. Strength and blood stand always in direct relation. He who takes blood from the patient, takes away not an organ of life, but a part of life itself.

"In burning fevers, it is by numerous experiences proved, that the most simple fevers, by bleeding, become nervous and putrid fevers, of which I can attest many such instances. In pure gastric fevers, bleeding is always pernicious; it does not vacate the diseased matter which is situated in the intestinal canal, and can only be removed by gastric remedies, while bleeding in such cases vacates a part of the strength which is necessary to be acted upon, in order to expel the disease.

"I desire it not to be forgotten, that in regular gout, the inflammation is nothing else than a crisis, a local metastasis, by which a dangerous stuff from the internal parts is thrown to the external. Nothing takes more of the necessary strength away, than bleeding; and the conclusion is, either the attack of the gout disappears directly, and the disorder is thrown internally, or to some dangerous part, as the head, the lungs, &c. Hence arise inflammation of the lungs, apoplexy, or inflammation of the stomach.

"In nervous affections, bleeding is no remedy; the nervous affection itself has from its nature with the blood nothing common; on the contrary it arises from a defect of the blood and of weakness. I have seen during my residence of nine years in Philadelphia, many ladies with nervous affections, and of such, four highly respectable ladies, whose physician I had the honor to be. Their former physician, in all slight indispositions, ordered them to be bled; whereby they be-

came more and more nervous, and those had no nervous attacks, when I stopped the bleeding. I treated in a similar manner, a very respectable lady in Philadelphia, who was attacked with a very severe pleurisy. and I saved her without bleeding, which to many in that city was very astonishing.

"It is alleged that the climate of this country requires in all indispositions, to be bled; and 2d. the people of this country are accustomed to be bled. Let us examine these reasons. How it comes to pass that during my residence of fourteen years in this country, I can prove by a great number of persons who have been treated by me during that time, and in the same diseases in which such persons were treated by physicians of this country, who employed calomel in great quantities, blisters and blood-letting, cups and leeches to supererogation; and of all these persons who have not fallen victims to such treatment, their convalescence was very long before they could obtain a little strength. Ladies who were very nervous tormented with hysteric spasms. The former recovered by my treatment, in a very short time, and the latter as I dispensed with the use of bleeding, lost their spasms and became directly better; all which I can satisfactorily prove.

"Where I have not employed bleeding, such persons recovered by my treatment in a very short time. If now the climate of this country should require in all indispositions directly to commence with bleeding, and I have neglected it, all these persons were inhabitants of this country and climate; all these should have died, but they recovered sooner.

"2. That people in this country are accustomed to be bled, this is a true, a very true verity; but what is the true reason of it? Whether is it the patient or the physician? I believe, to speak with justice, it is the latter. What does the patient know of what is convenient for him? He complains of headache, cramps in the stomach, cholic, dyspepsia, &c., he sends for his physician in whom he very likely has confidence; he thinks that all that is ordered him will be convenient for him; and the doctor after feeling his pulse a little strong, declares to him his severe sentence, "you must be

bled," and thus is a habit of bleeding established. I know very many cases wherein a physician has accustomed his patient to be bled four times a day! But time proved the result of such treatment by the death of a great number of such patients. I am certain that all such persons who have been bled a great many times in their lives, their constitution must become weaker every year, but their repentance will in future be too late.

"The duty of a true physician, who is not an egotist, is to answer to the confidence of his patient, to recover him as soon as he can, and not by weakening remedies to prolong the treatment, which is probably the principal cause why a great many physicians employ such treatment, especially if the patient is able to pay, thereby to inscribe to him a great number of visits, and the patient by this intention, afterwards falls a victim to the avariciousness of the physician. How many patients have perhaps been treated by such an intention? If the physician can persuade his patient to be bled freely, if he do not soon die under such treatment, nevertheless his constitution is enfeebled and becomes weaker every year; and thus the patient is obliged frequently to call for his doctor, who has the pleasure at the end of the year to have a great many visits inscribed to his patient.

"Such a treatment I shall never undertake, notwithstanding different physicians would persuade me to do it. The quickest recovery of my patients, shall always be my greatest satisfaction."

The above are the words and sentiments of the distinguished gentleman whose name we have given at the commencement of the remarks. We give them as his words, and we leave our readers, to make their own comments upon them; observing only, that we think they deserve serious consideration; as coming from one of such high standing in the profession both in Europe and America; one educated in the old schools of blood-letting and mercury; one who against early prejudices and popularity has come out boldly and independently in the cause of truth and humanity. When a man is thoroughly convinced that he is acting in a bad cause, it is the surest proof of his goodness

and magnanimity, to come out and enlist in a good cause. The love of popularity and the pride of boasting ignorance, has bound many as with fetters of iron, to a bad cause, and induced thousands to misrepresent a good cause and do all in their power to injure those who are innocently and devotedly engaged in it.

In noticing the different ways in which inflammation or local fever may terminate, we mentioned mortification as being the most unfavorable termination. Under one variety of circumstances, inflammation will end in resolution; under another in adhesion; when influenced by others, it may end in suppuration or the formation of matter, and when operated upon by other circumstances still less favourable, it may terminate in mortification, or the death of the part. Each of the above named terminations, may be traced to an adequate cause. If a person of sound constitution receive a wound, giving rise to inflammation, this inflammation, if not prevented by art, will very probably end in resolution, or in other words, a restoration of the form and functions of the part, without producing disorganization, or organic lesion. If the constitution is less vigorous, or if there should accidentally be suffered to remain in the wounded part some foreign or extraneous matter, suppuration will be likely to ensue. But if the individual should be labouring under much debility at the time of the reception of the wound or soon after, whether this debility be depending upon former disease or excessive depletion, we may reasonably conclude that in such a case mortification will be the result. How many cases of mortification have been produced by the debilitating effects of blood-letting? Any man possessing but a moderate portion of common sense may see how bleeding is calculated to produce mortification. No part can keep up its action any longer than it retains its power to act with. It is well known that mortification is most apt to occur to the aged, and such as are much debilitated by the effect of unwholesome food and bad air.

It is also known, that except in cases of local disease, mortification more commonly happens in parts most distant from the centre of circulation, in the extremities where the powers of life are weakest; all going to prove that debility

or diminution of vital action is the immediate cause of mortification.

Improvement in surgery consists primarily and more essentially in lessening the necessity of operations, and secondarily, in ascertaining the easiest and safest mode of operating, when the first object fails to be accomplished.

We, as medical reformers profess, to have discovered a plan of treatment for local fevers, which shall in general prevent the occurrence of mortification, and thus obviate the necessity of surgical operations. We know full well that he who skillfully amputates a limb, gains much applause; but we think that the reward of him, who so treats the disease as to remove it, and thus save the limb, is much greater and far more desirable, since it consists in the pleasure arising from the consciousness of having done a useful and good act; though by this it should not be inferred there is no good in the former act; but we are apt to judge of the rectitude of actions, as we do, that of people; viz. by comparison or analogy.

We might say much more upon the subject now under consideration, without the fear of subjecting it to the inconvenience of even a partial exhaustion; but for the accomplishment of our present object, and in accordance with the brevity of this essay, enough has been said; we feel confident that our candid and impartial reader will acquiesce with us in the following conclusion.

That bleeding seems to be a bad mode of practice, let us view it on what side soever or in whatsoever disease. That it is much better calculated to make people sick, if practised upon them when they are well, than to make them well if practised on them when sick. That it ought to be entirely abandoned by every physician. And that if people are so partial to it, as to be determined to risk it, they should by all means get bled when they are well and better able to bear the loss of blood. That finally it becomes every lover of health and life, to study well into these things; to ascertain whether they be true or not.

CHAPTER XII.

OF MERCURY, AND ITS EFFECTS UPON THE HUMAN CONSTITUTION.

The preparation of mercury most in use as a medicine, is commonly denominated by writers on *materia medica*, the mild muriate of mercury—calomel; or the sub-muriate of mercury of the London and Edinburgh *pharmacopæias*. This preparation of mercury, (calomel,) is said to possess many various and valuable medicinal properties; known in medical language, by the terms, cathartic, laxative, alterative, diaphoretic, expectorant, deobstruent, anthelmintic, sialagogue, &c. Though it is frequently given to act in each of the ways above mentioned, yet it is most frequently exhibited, with a view to obtain the benefits supposed to arise from its cathartic or purgative effects.

But before we proceed further to examine the subject now before us, it may not be improper to submit a few preliminary remarks for the consideration of our reader.

Since our remedial agents are generally confined to the vegetable kingdom, it may be thought by some, that we possess some hereditary or innate prejudices against minerals, and that on the other hand we are prepossessed in favor of vegetables. To this idea we must answer, that whatever may be our prejudices against the one, or our prepossessions in favour of the other, they are all honestly and candidly acquired; they are founded upon that kind of science, whose basis is fact, derived from actual experience and observation. We have no prejudices against the name of mineral, and if articles of the mineral kingdom could be so used as to contribute to the relief of suffering humanity, without at the same time subjecting the system to accidents or dangers, the occurrence of which to it would be more intolerable.

ble than death itself, we would heartily unite with our professional brethren in the use of minerals; but when we have sufficient evidence to convince us that certain minerals, which are now extensively used as medicines, exert a highly pernicious influence upon the constitution, and cannot be used in any case, even in small quantities, without danger, we are then obliged, in obedience to the demands of our own conscience, of justice, of love to mankind, and of moral duty, to denounce the use of them, and to use every honorable and laudable means in our power, to shew to the world the evils consequent upon their use.

By many English and American physicians, calomel is administered for the cure of almost every disease, to which the frail system of man is incident. The learned French, German and Italian physicians, together with most all continental physicians, express much astonishment at the abundant use of mercury by the English. The former only use it in a few peculiar cases, while the latter exhibit it indiscriminately in almost every case! But, if possible, American physicians are still more profuse in the use of this article, than the English. In cases of fevers, after having introduced the treatment by bleeding, a quantity of calomel, combined, perhaps with jalap, is administered; it is given with a view of obtaining its cathartic effect, and thus reducing the action of the heart and arteries by mercurial depletion. But it is necessary here, that we make some inquiries into the natural and chemical history of mercury, since what little has been said, alone relates more particularly to its medical history, that is, its character as given in *materia medica*. The principal ore of this metal, is the *sulphuret* or *native cinnabar*, from which the mercury is separated by distillation with quicklime or iron filings. Mercury is a brilliant white metal, having much of the color of silver; whence the terms *hydrargyrum*, *argentum vivum*, and quick-silver. It is liquid at all common temperatures, solid and malleable at forty degrees, and it boils and becomes vapour at about six hundred and seventy degrees. Its specific gravity, compared to water, is as 13.5 to 1.—Mercury is sometimes adulterated with the alloy of lead and bismuth—a fraud easily detected by the want of its due flu-

idity, and by its not being perfectly volatile, but leaving a residuum when boiled in a platinum or iron spoon. Native mercury occurs in small globules, in most of the mines producing the ores of this metal. *Mercury* and *chlorine*, combine in two proportions, and a *protochloride* and *perchloride* of mercury are the results. These compounds are usually called *calomel* and *corrosive sublimate*. In the *London Pharmacopœia* they have received the improper names of *submuriate* and *oxymuriate* of mercury.

PROTOCHLORIDE OF MERCURY.—This compound commonly termed calomel, is first mentioned by Crollins, early in the seventeenth century. The first directions for its preparation are given by Benquin, in the *Tyroceum Chemicum*, published in 1608. He calls it *draco mitigatus*. Several other fanciful names have been applied to it, such as *aquilla mitigata*, *manna metallorum*, *panchymagorum miucrale*, *sublimatum dulce*, *mercurius dulcis*, &c.

The most usual mode of preparing *Calomel* consists in triturating two parts of *Corrosive Sublimate* with one of *Mercury*, until the globules disappear, and the whole assumes the appearance of a homogeneous gray powder, which is placed in a sand heat and gradually raised to redness. The calomel sublimes, mixed with a little corrosive sublimate, the greater part of which, however, being more volatile than the calomel, raises higher in the matrass; that which adheres to the calomel may be separated by reducing the whole to a fine powder, and washing in large quantities of hot distilled water. Pure calomel, in the form of a yellowish white insipid powder, remains. It was formerly the custom to submit calomel to very numerous sublimations, under the idea of rendering it mild; but these often tended to the production of corrosive sublimate, and the calomel of the first sublimation, especially if a little excess of mercury be found in it, is often more pure than that afforded by subsequent operations.

Mercury was regarded by the Greek and Arabian physicians as a violent, and dangerous poison, and for a long time was excluded from the list of medical agents; it was however finally used as an external application for the cure of certain affections of the skin; from this it gradually

came into use as an internal remedy, against the plague. It was mostly used in this way by noted empirics. The employment of it for the cure of disease, was prohibited for a long time by the government of France. But for the cure of some peculiar diseases, it was regarded and proclaimed by many to be a specific. From this it became more generally used, especially by the English, until it has been carried to that extent in which it is given in almost every disease, which comes under the treatment of those physicians who use it. Calomel is defined to be a stimulating, irritating and debilitating purgative. In common with other cathartics, it possesses a specific quality, whereby it stimulates the bowels to an increased action; thus evacuating their morbid contents, and giving rise to an abundant serous discharge from their internal surface. Calomel appears also to exert a marked and peculiar effect upon the secretory function of the liver; exciting this organ to unnatural and excessive labour in the secretion of bile. When calomel is suffered to remain in the system for much time, under favorable circumstances, as respects the action of the absorbents, it is carried into the circulation, in which case it has a strong tendency, (as many know too well by experience,) to affect the salivary glands, the palate, the gums, the tongue, and teeth. It has been said by some physicians, and indeed is as strenuously contended by many of the faculty of this day, that in order to break an established fever, it is necessary to produce salivation.

But let us examine this proposition, and see whether it stands upon reason, or whether it be raised upon the unstable basis of bare assertion. To break a fever is to remove the cause which gives rise to it. Now we would ask of those who deal so liberally in calomel, how the cause of fever can be removed by salivation? Does the cause flow off with the abundant discharge of saliva, which happens in these cases? Does all the morbid matter of the system become concentrated in the glands, and other parts about the mouth? Or does salivation itself cure a fever, or is it merely the sign that a fever is broken because the cause is obviated?

We are ready to answer that the process of salivation has no tendency to remove the cause of fever; but that it is a

symptom of a favorable crisis, brought about by the efforts of nature, exclusive of any aid from calomel. This latter position, we shall now endeavor to prove by medical reasoning. It is well known to physicians, that, in order to produce a salivation in cases of fever, it not unfrequently requires the continued and repeated use of mercury for several days, and sometimes for even several weeks. Whereas if a portion of calomel be administered for the counteraction of some slight indisposition, it not unfrequently, (circumstances favoring,) affects the constitution and produces salivation in a greater or lesser degree. By explaining the causes of these phenomena in medicine, and the manner in which they are brought about, we shall prove that salivation is only a symptom of a favorable crisis of the disease producing fever.

1st. While speaking of the action of the arterial and absorbent systems, we observed that these are antagonizing powers; that is, when the action of the one is increased, that of the other is diminished. In fevers the action of the heart and arteries is increased, and the action of the absorbent system is uniformly diminished. Calomel being administered in small doses insufficient to produce catharsis, and with the intention of effecting a salivation, remains in a state of inertia in the intestinal canal, since the absorbents, which open upon the internal surface, are in a state of inactivity, in consequence of the accelerated action of the heart and arteries.

The exhibition of the Calomel, being continued, must of course cause and increased accumulation of it in the alimentary canal.

2. So long as the fever continues, but very little, if any, of the particles of mercury are taken into the circulation; but when nature shall, unassisted, have removed the cause of the fever, the high or febrile action of the heart and arteries subsides, and the absorbent system takes on its customary action. Nature finding, to her disappointment and regret, an accumulation of foreign, irritating and poisonous matter in the bowels, orders the absorbents, (whose office it is to clear the system of unnecessary and cumbersome matter,) to take up the globules of mercury, to carry and

deliver them to the different secretory and excretory organs, for the purpose of their removal from the system. The mercury, while taking the round of the circulation, comes in contact with the salivary glands, whose peculiar sensibility renders them extremely susceptible of its action. A swelling and inflammation of the glands and adjacent parts takes place; an increased secretion and flow of saliva soon follows; and in this state the patient is said to be laboring under mercurial salivation. But it is to be recollected that, previous to the commencement of this state of salivation, the action of the heart and arteries becomes slower and more regular, the skin becomes soft and moist, and other symptoms are present, indicating a restoration of action throughout the system. The irritation of the mercury upon the glands of the mouth gives rise to more or less of local fever, which sometimes, by sympathy, extends to the whole system, producing what is properly termed the mercurial disease.

It is evident, that the calomel cannot with entire impunity remain for any length of time in the alimentary canal; hence we may reasonably infer, that during the fever, while it is accumulated there, it is a source of oppression of the vital powers, and consequently brings on debility; so that the patient derives no advantage from the calomel, except it operate as a cathartic; but is obliged to endure its primary oppressive influence, and all the pain and inconvenience of its secondary effect of salivation.

Those of our readers, who have had their own systems subjected to a course of mercurial salivation, need not be told that it is a distressing operation in the first instance; nor that it makes a deleterious and lasting impression upon the system.

This we hear from respectable and intelligent people, almost every day. Hence, we say that it is time to abandon a practice, which under the most favorable circumstances, does not produce as much good as another practice, which is entirely void of danger. We do not say that calomel does no good in any case, but we say that it is very liable to produce bad consequences, and should be substituted by something equally efficacious in its remedial agency and destitute of deleterious qualities.

We shall here insert some of the observations of James Hamilton, M. D. Fellow of the Royal College of Physicians and Professor of Obstetrics in the University of Edinburgh. "Among the many poisons which have been used for the cure or alleviation of diseases, there are few which possess more active and of course more dangerous power than mercury. Even the most simple and mild forms of that medicine exert a most extensive influence over the human frame, and many of its chemical preparations are so deleterious, that in the smallest doses they speedily destroy life. When the effects of mercury upon the human system are accurately investigated and duly considered, it cannot fail to appear, that infinite injury must accrue from its use in many cases, and that whenever from the nature of the indisposition, violent remedies are not absolutely required, a safe substitute for so hazardous a medicine ought to be found. Preparations of mercury, exhibited either internally or externally for any length of time, increase, in general, the action of the heart and arteries, and produce salivation followed by emaciation and debility, with an extremely irritable state of the system.

"These effects of mercury are expressly mentioned or virtually admitted by every author, ancient and modern, who has directed its use, and it must appear very extraordinary that their full influence should have been hitherto misunderstood or at least not sufficiently regarded. Accelerated circulation of the blood in consequence of the use of mercury, is attended with the most obvious of the circumstances which arise from inflammation.

"Reasoning upon the subject it might be concluded, that if there be an inordinate action of the heart and arteries, attended with an altered state of the blood and with debility, while the increased secretions accompanying the inordinate action have no tendency to allay it, the health must be rapidly undermined, and if there be ulcerations in any part of the body, they must as certainly degenerate into malignant sores, as blistered surfaces or scarifications mortify in cases where the living powers are much exhausted. Experience has proved the reality of these conclusions, but prejudice and inaccurate observation led many practition-

ers of deserved reputation to attribute those effects of mercury to other causes. From the cases recited by Dr. Blackall, there is reason to believe, that the inflammatory diathesis induced by mercury, may continue for a very considerable time after the mercury had been laid aside, and without any manifest signs.

When individuals in this state are subjected to accidental exposure to cold, or indulge in irregularity in living, a violent and anomalous indisposition takes place, which is apt to terminate fatally, or to occasion a broken state of health. In some cases of salivation, besides the ordinary ulceration of the gums, and loosening and final separation of the teeth, the tongue, moveable palate, &c, swell and ulcerate to a frightful degree.

"Mr. Benjamin Bell observes, that besides the usual symptoms of fever, "mercury is apt to excite restlessness, anxiety, general debility, and a very distressful irritable state of the whole system. The consequences of this effect upon the nerves, are different upon different individuals. In some, temporary delirium takes place; in others, palsy or epilepsy supervene; and in many, the memory and judgment are more or less permanently impaired. Instances, too, have occurred, where sudden death has supervened, apparently in consequence of a very trifling exertion or agitation."

"Mr. Pearson has well described such cases under the head of *erethismus*. He says, this state is characterized by great depression of strength or sense of anxiety about the precordia, irregular action of the heart, frequent sighing, partial or universal trembling; a small quick and sometimes intermitting pulse, occasional vomiting, a pale contracted countenance, a sense of coldness, &c."

Among the anomalous complaints arising from this cause, (viz: mercury,) may be enumerated, impaired or capricious appetite for food, with all the ordinary symptoms of indigestion; particular retching in the morning and flatulency, disturbed sleep, with frightful dreams, impaired or depraved visions, frequent aches and pains in different parts of the body; occasionally such sudden failure of strength, as if just dying, and at other times, evident palpitations at the heart, accompanied with difficulty of breathing. Dr. Falconar

says, that among the ill effects produced by Calomel, it tends to produce tremors and palsy and not unfrequently incurable mania. Mental derangement with eventual fatality has sometimes followed a course of mercury; and the probable reason why it does not do so more frequently, is that the irritable state of mind which usually precedes actual derangement commonly alarms the attendants and leads to active precautionary measures. Another consequence of the use of mercury is a very violent affection of the skin, originally hinted at by Mr Benjamin Bell, and more lately particularly described by Dr. Alley of Dublin, Dr. Spens, of Edinburgh, and Mr Pearson of London. Experience seems to prove that mercury may remain in the system in a state of inertia for a considerable time, and afterwards by some inexplicable circumstance may become active and produce its specific effect. The ordinary mode of exhibiting mercury for the cure of chronic hepatitis or common liver complaint in this country, not unfrequently hurries on the disease, or by impairing the constitution, lays the foundation for paralytic affections, and it may be truly affirmed, that it thus often shortens life. That there are many individuals who have often with impunity taken calomel as a purgative, is not to be denied; but it is equally true, that extreme irritability of the stomach and bowels, ulcerations of the mouth, with caries of the teeth, dropsy, epilepsy, and various other modifications of disease, have followed the use of that preparation. In several cases, the author has decidedly ascertained that ulcerations of the villous coat of the intestines in infants and young children, have been induced by the frequent repetition of doses of calomel.

Had these injurious effects of calomel upon delicate constitutions been hid from the rest of the profession, and known only to the author, some apology might be offered for the pertinacity with which that medicine is still prescribed; but so far is this from being true, that it may be confidently asserted, that no medical man of competent knowledge and observation, could administer calomel as a purgative in a hundred instances, without being convinced of its injurious tendency. Of this, innumerable proofs could be cited; but it is sufficient to appeal to the testimony of

professor Carlisle and of Dr. Blackall. "That grave men," says Mr Carlisle, "should violently persist in directing large doses of calomel, (and I consider any dose above four grains to be large,) and order these doses to be daily repeated in chronic and debilitated cases, is passing strange; men starting into the exercise of the medical profession, from a cloistered study of books, and from abstract speculations; men wholly unaware of the fallibility of medical evidence, and unversed in the doubtful effects of medicine, may be themselves deluded, and delude others for a time, but when experience has proved their errors, it would be magnanimous and yet no more than just, to renounce both the opinion and the practice."

It appears to us, that the above remarks of Dr. Hamilton, and others of the profession, whose names are given, contain much truth, which will be responded by the experience of many of our readers. We deem it unnecessary to make any comment upon these observations, since they are so plain and evident that every one can comprehend them and draw his own inferences. It is not unusual for many physicians, (when any doubts are expressed by those interested concerning the safety and propriety of taking calomel,) to say, that though mercury is sometimes attended with bad consequences, still it is the only remedy which will save life in certain cases; and rather than die, it would be better to run the hazard of taking it.

Now it must be acknowledged that this is no more than bare assertion, and though it has been an argument sufficiently strong to induce thousands to take mercury at the expense of their own health and life, still we are disposed to think that such arguments will not convince the thinking and intelligent mind. We are not fond of suspecting the sincerity of men's opinions; but when we hear men say that in certain cases nothing will prove effectual except calomel, and then in these very cases, see them resort to some other means, such as croton oil or some other vegetable production, we are compelled to suspect their sincerity. As an instance of the inefficiency of calomel for the relief of some diseases, we will relate the circumstances and treatment of a case of bilious cholic which occurred about a year ago,

in the northern part of Ohio. A gentleman was attacked with the ordinary symptoms of bilious cholic. A physician was sent for, who commenced the treatment by administering a large dose of calomel—it had no effect—the dose was repeated and repeated, till in the course of about three days, the doctor acknowledged that he had administered to this patient *two ounces* of calomel and fourteen drops of croton oil; all this had been given to no purpose; the patient grew worse, the friends became alarmed; and upon expressing their fears to the doctor, were told by him that the case was desperate, and the only chance would be to give more calomel. As it seems the friends had common sense enough, to convince them, that two ounces of calomel were as much as could, under the most favorable circumstances, be productive of any good, and that inasmuch as no advantage in this case had been derived from calomel, they were unwilling that any more should be given. They were all at a loss to know what to do, if they should send for another doctor of the regular faculty, they had no reason to doubt but that he would pursue the same *regular* course of giving calomel, as the one had done, whom they had already employed, he himself being a regular doctor; as any one must know from his having given two ounces of calomel. At several miles distance, there lived a steam doctor, who was quite successful in curing diseases, but he did not follow the fashion: and to employ such a man for a doctor would bring a lasting disgrace upon the whole family, besides incurring the particular ill will of the faculty. It was no time for protracted deliberations. Something must be done soon. The patient was convinced that unless something could be done for his relief, different from what had been done, he must soon yield to a dissolution. Under this conviction he came to the unreasonable conclusion, that of two evils it is best to choose the least; that rather than die, he would send for a steam doctor! The humble steam doctor came, without any calomel or lancet; poorly equipped indeed to combat disease; but his means, though seemingly weak, were irresistibly strong; because they ran parallel with the steps of nature in the cure of disease. In the course of a few hours, the patient was essentially relieved,

and in about two days was able to be up and about. The above statement is given upon good authority, and can be proved, to satisfy the doubtful.

It would be well for those physicians, who talk about the inefficiency of vegetable medicines, to tell us why they resort to the use of croton oil, where calomel fails. Perhaps it will be as difficult for some of them to answer this question, as to tell us the propriety and goodness there is in the course which some of them take in regard to the reformed practice of medicine. Many of them condemn this practice, and call those who follow it a set of quacks, ignorant of medical science, and devoid of the common feelings of humanity. In speaking to others of the practice, they represent it as a system of practical nonsense, and base imposition.

Now it can be proved that these very men, some of them, have availed themselves of the advantages of the reformed practice, so far as more accident has placed it within their knowledge; and this they have done too, in cases where their own practice failed; thus tacitly confessing in private, the superiority of the reformed practice, and taking every opportunity in public, to injure its honest good reputation.

We have nothing to say against these men, because they follow our practice; on the other hand, we are glad that they avail themselves of this means to relieve the sufferings of our fellow-men; for it is evident that men whose profession it is to relieve the sick, should have a knowledge of the safest and surest means to do it. We only say that it is ingratitude in them to use the means which they obtain from us, and then to slander and abuse us and our practice, because we use such means. We acknowledge what the regular faculty say in regard to calomel being a powerful article; and to strengthen their evidence of this fact, we will relate a striking example of its herculean power, which exhibited itself in the constitution of a small child.

The circumstances are as follows: A child in the town of——— was taken sick in the evening; it had a high fever, &c. The parents, though usually in the habit of employing the regular calomel doctors, concluded that they would now, for the first time, try what virtue there is to be found in vegetable medicine. They accordingly called

in a Botanic doctor, who after inquiring into the case, left some medicine, and gave directions for its exhibition. He left, and the medicine was given as ordered, and had the desired effect. The next morning, the doctor called to see the child, he found it running about the room, engaged in eating a piece of bread, which it held in its hand. Notwithstanding the favorable situation of the child, the parents expressed some fears concerning it; thinking that it had got well too soon, for one so sick as it appeared to be, and that its apparent health was only illusory, and would last but a short time. The doctor assured them that the child was well, and that it was unnecessary to give it more medicine. The Botanic doctor then left; and in a short time the parents called in a regular doctor, to learn whether the child was well, or whether its health was only apparent. The doctor after making some inquiries and ascertaining that a Botanic doctor had attended, assured the parents that the child was very far from being well, that the fever would soon return unless something was done to prevent it. This was what they expected; the doctor was engaged to treat the case. He commenced his treatment regularly, by giving a dose of calomel, and ended it as regularly by giving a dose of the same; but from the commencement of this regular treatment the child grew worse regularly. It lay seven weeks, most of the time, in a helpless and distressing situation. It was subjected to a regular course of cooling powders, which produced a severe salivation, giving some grounds to suspect that the cooling powders contained some calomel. The mouth, gums, lips and cheeks were literally destroyed by mercury; and the prospect was no other than that of the grave. At this time, and while the child was in the above described situation, the father of the child, went for the same Botanic doctor who had treated and cured the child in the first instance. The doctor, with much reluctance, consented to go; and after using rational means for a short time, the child got better, and finally recovered, with a disfiguration of the face, which would ever after render life a burthen. Here is evidence of the power of calomel.

This is the substance of the account which we received from the mouth of the Botanic physician who treated the case

and who sustains a highly respectable character both for general intelligence and christian virtue. Many more cases of a similar kind, might be related, but we shall only ask the indulgence of our reader, while we submit a few remarks more upon this subject.

It is a common practice to administer mercury or calomel, to children laboring under an affection characterized by, at first, the usual symptoms of common cold or catarrh, followed by a scarlet eruption upon the skin, a swelling of the glands of the throat, oppression of the brain, &c. called scarlet fever in the books. Now every physician should know, that in this disease there is a peculiar and strong tendency to diseased action in the glands of the mouth, and to functional disturbance in the brain. It would also seem that an uncommon quantity of the morbid poison, giving rise to this affection of the system, is determined to the above named parts, but not till a partial subsidence has taken place in the fever of the general system. Here it is evident that the irritation produced by mercury upon the salivary glands must add much to the affection of these parts, induced as a natural consequence of the disease. It must also increase very much the danger of inflammation of the brain, or rather the disease which causes this inflammation. For if the irritation produced by the mere extraction of a tooth be sufficient to induce an inflamed brain, how much more might we expect this result, from the extensive irritation excited by salivation? Again, the action of calomel upon the internal surface of the bowels is that of a powerful chemical and mechanical agent, irritating these parts so much, as to determine so large a portion of nature's efforts to the regulation of this difficulty, that an insufficiency is left to act upon the external exhalents, for the removal of the morbid matter from the system. Here we would remark that the eruption upon the skin, in cases of measles, small-pox, scarlet fever, (as it is called,) and all other exanthematous diseases, is caused by the determination and lodgment of the poisonous matter, which is the immediate operative cause of the disease. The inflammation of the skin is the process which nature takes to expel the poison, when it has reached the skin, and should this salutary process be checked by improper medical treat-

ment, or by unforeseen accident, then a reversion of the poisonous matter takes place; that is, it recedes from the external surface, to the internal organs; and in this way sometimes proves fatal. This is what the good old women call the striking in of the measles, &c.; to prevent which, they give warm teas internally, and apply external warmth; so that in this circumstance as well as in a thousand others, they manifest their good sense and experimental knowledge so conspicuously, that even the learned regular doctor might learn an important practical lesson from this source. How many children who have fallen victims to calomel, instead of scarlet fever, might have been saved by the more rational treatment of some good old lady. But says our reader, you would not have it, that the old women are more successful in treating scarlet fever, than the regular doctors? Yes kind reader, this is just the way we would have it; because this is a notorious fact, to which thousands will bear testimony; and the reason is plain, because their remedies act more in accordance with the course which nature takes to cure disease.

In cases of common continued fevers, calomel is exhibited in small and repeated doses for a considerable time, in order to obtain its specific effect upon the constitution, which is indicated by the common symptoms of salivation. In this way calomel is frequently administered under disguise, in order to deceive the patient and friends; or in other words, as the doctors say, to take advantage of the patient's and friends' prejudices. In this way it is given in the name of *cooling powders*, and thousands have been subjected to this mode of cooling treatment, and been continued under it, till they have been cooled into the cold embraces of death! Beware then, of *cooling powders*, since they act in direct opposition to nature. We know full well, that the increased heat of the system in fever, is uncomfortable to the patient; but it is but a natural consequence of the increased action of the heart and arteries; and as we have before said, this action is indispensibly necessary, so long as the disease continues. For the sake of the real good, let us bear the apparent evil, with patience. It would be folly to complain of the sun, because his intense rays dazzle and pain our eyes when we

look at him. In the treatment of the common summer complaint of young children, calomel exerts an extremely deleterious influence; and to conceive how this is the case, it is only requisite, that we consider the nature and properties of the article, and the delicate organization of the parts with which it comes in contact.

Every one at all conversant with the science of life knows that all the organs of the infant, are of extremely delicate texture; their structures are less able to withstand the influence of foreign or extraneous irritants, than the same structures in adults; that their food must be of the mild, and unirritating kind, to correspond with the weak powers, and highly sensible state of their stomach; that like the young and tender plant, it requires that their treatment, both in a physical and medical sense, be gentle, mild and attentive. Now, notwithstanding the apparent fineness of the compound particles of mercury, still when viewed with a microscope, they present sharp cutting edges and angular points. In this magnified state, they present their real shape, though not their true size; for however powerful the magnifying quality of the glasses may be, it is impossible for them to give form and appearance to mere nothing. Then it must be admitted that by the aid of glasses we can learn the form of these small particles of mercury; and since it is a physiological truth that the solvent powers of the gastric juice, cannot change the form or quality of such substances, it is very evident that the tender organization of the internal lining membrane of the infantile alimentary canal, must undergo more or less of disorganization or decomposition. Instances are on medical record, which fully substantiate this doctrine. Thousands of young children have been sent to the dark and dreary mansions of the dead, by being subjected to the violent and decomposing influence of mercury, who might have been saved by mild and rational treatment. How long shall this custom of human sacrifice to the mercurial god be continued in this civilized and enlightened country?

Let this subject, in common with others of less importance have a place in the serious reflections of every parent—of every philanthropist. Let no one who lays claims to scien-

tific knowledge, be destitute of a knowledge of the science of animal life, which is commonly termed Physiology. It is essential to the Preacher, the Lawyer, the Statesman, the accomplished scholar, the private gentlemen, and finally to every one who regards his life and health. To the physician this knowledge is indispensable, and if he has it not, he is more liable to commit practical errors, which the world may justly regard as inexcusable, and which will be recorded in the public mind as errors of unpardonable ignorance.

Dr. Chapman of Philadelphia has given it as his opinion that mereury is a common cause of chronic hepatitis or liver complaint; and from its specific and powerful action upon the liver, we have no reason to doubt the propriety of his opinion. The large quantities of calomel which are administered in common cases of continued fevers, are directly calculated to exhaust the powers of the liver, and thus to produce in this organ functional derangement and chronic inflammation. Many of the most marked and aggravated symptoms which are indicative of what has been called *bilious fever*, are brought on by the action of the mercury! The biliary secretion of the liver is morbidly increased by the action of this mineral; a large quantity of bile is accumulated in the *hepatic acina* or the biliary reservoirs of the liver. The debility caused by this over action renders the excretory vessels of the liver unable to carry off this superabundance of secreted bile; the biliary absorbents which open upon the interval pareties of the biliary cells, act in relief of the distended cells, taking up the bile, and carrying it into the circulation, whence it is deposited under the skin and in the exterior coats of the eye. This is what gives rise to the peculiar symptoms of bilious fever, and calomel is one of the main exciting causes, as above explained.

This view of the influence of calomel will account in part for the great prevalence of liver diseases in the Southern and Western States, where mereury is given in such abundance. But it is said that all that is said against the use of calomel is the result of vulgar ignorance and prejudice. This is said by many physicians especially the young and self-knowing. Now we would ask, are all who object to the use of this article, to be regarded as vulgar and igno-

rant? Must a large number of highly respectable and intelligent individuals who denounce the use of calomel and the lancet, be classed among the ignorant and vulgar; by a set of young conceited and self-sufficient bigots in medicine? No, the prejudices of these individuals are the products of that knowledge which they have derived from sound reason, and from careful observation and long experience; these prejudices have arisen from seeing the beauty and health of the young demolished by mercury and frequently their lives destroyed by blood-letting!

The cause of medical reform, is the cause of the people, the cause of physical happiness, and the cause of humanity. We, who are engaged in it, view it in this light; and from this view of the subject we are constrained to persevere; to go forward, regardless of the opposition of those who condemn every thing which is not popular; who would sooner support popular evil, than unpopular good; who assume the name of republicans, and deny every thing like true republicanism in their conduct. The efforts of such to injure the cause, will prove as ineffectual, as falsehood against truth. Such malicious attempts to injure a good cause, never fail to fall, from the specific gravity of their own evil, before they reach the cause, towards which they are directed; and by the repulsive powers of good against evil, they are returned, to reward the original giver.

We shall now bring this part of our subject to a close, by merely remarking, that all we have said of the use and effects of the mercurial preparations, has been said in candor, and from that conviction of mind which has been produced by careful study and cool deliberation, and from experience and observation. Those who receive the same impression from the evidence which is given, as we have received; will think with us that mercury is productive of much evil, in many cases where it is exhibited as a medicine—that its operation upon the human constitution is extremely deleterious under many circumstances—that it is not a specific for the cure of any disease, and where other medicines equally efficacious and void of danger can be used, calomel should be dispensed with. Now if our reader is not convinced of the propriety of the above conclusions, we shall

have no reason to censure him, but we would merely say to him, that further investigation may discover new light, and bring arguments into view which have heretofore been behind the curtains of early education and prejudice. Truth, like gold, grows brighter by use, and its value will be the more duly estimated as its utility is the more plainly discovered. Those who sincerely seek for truth, are such as are in the love of it.

CHAPTER XIII.

OF THE USE AND EFFECTS OF ANTIMONY IN THE PRACTICE OF MEDICINE.

ANTIMONIUM.—The *etymology* of this word is rather obscure, but that which is most generally received, is *anti* against, and *monas* a monk; because Valentine by the administration of it, poisoned his brother monks. The most abundant ore of this metal is that in which it is combined with sulphur, the gray ore, or sulphuret of antimony.

The color of antimony is that of a grayish white, having a slight blueish shade; it has a lamellated texture, and exhibits plates crossing each other in every direction; its specific gravity is 6, 702; it is sufficiently hard to scratch all the soft metals; it unites with sulphur and phosphorus; it unites by fusion with gold, and renders it pale and brittle; it forms several distinct compounds with oxygen.

The preparation of antimony most used in medicine is called antimonium tartarizatum or tartar emetic. This is prepared in the following manner, according to the French pharmacopœia. 1st, a subsulphate of antimony is formed by digesting two parts of sulphuret of antimony in a moderate heat, with three parts of oil of vitriol. This insoluble subsulphate being well washed, is then digested in a quantity of boiling water with its own weight of cream of tartar, and evaporated at the density of 1, 161; after which it is filtered hot; on cooling, crystals of the triple tartrate are obtained. Pure tartar emetic is in colourless tetrahedrons or octohedrons. Its taste is nauseous and caustic, boiling water dissolves half its weight, and cold water, a fifteenth part.—Sulphuric, nitric, and muriatic acids, when poured into a solution of this salt, precipitate its cream of tartar; and soda, potassa, ammonia, or their carbonates, throw down its

oxyde of antimony. When tartar emetic is exposed to a red heat, it first blackens, like all organic compounds, and afterwards leaves a residuum of metallic antimony and subcarbonate of potassa. From this circumstance, and the deep brownish red precipitate, by hydrosulphurets, this antimonial combination may readily be recognized.

Of all the antimonials, tartar emetic is most extensively used, and it is also the principal emetic derived from the mineral kingdom. It usually excites vomiting in the dose of a grain or a grain and a half, but the common mode of administering it, is in divided doses, three or four grains being dissolved in four ounces of water, and an ounce of this solution being given every quarter of an hour until it operates. In this mode of administration, it generally excites full vomiting, evacuating not only the contents of the stomach, but inverting even the motion of the duodenum, and either by this or the compression exerted by the action of the muscles on the abdominal viscera, causing bile to be discharged; it also frequently excites purging.

It is an approved opinion among physicians generally, that emetics stand along with the major remedies for the cure of many diseases, especially where these diseases are depending upon derangement in the *prima via* or stomach.

We have shown in our former remarks in this work, the way in which emetics produce their beneficial effects, and in this place it would be superfluous to repeat it, since it is presumed that the reader bears it in his memory. But it will be necessary to say something more in this place, in relation to some of the erroneous notions, entertained by many people, and sanctioned by many physicians, either from interest or ignorance, concerning the incidental and secondary effects connected with *emesis*.

It is thought by some that disease or derangement of the stomach is to be ascribed to the presence of bile in that organ—that bile may gradually and imperceptibly accumulate in the stomach to such extent or quantity as to render it indispensibly necessary to resort to the aid of emetics for its evacuation. That persons uninstructed in the anatomy and physiology of the human system, should indulge such notions is not at all surprizing; but that physicians claiming

and professing a knowledge of the science, should attempt to confirm these notions, is to us a matter of supreme astonishment. Do not the physicians, who hold these ignorant and puerile ideas, know that the bile is discharged through the biliary duct, from the liver and gall bladder into the duodenum, and that there is a constant action of the stomach and duodenum from above downwards, which is termed peristaltic, which forces the contents of the above mentioned organs downwards, and successfully prevents the bile or any thing else which may form a part of the contents of the duodenum from ascending thro' the pyloric orifice into the stomach? Do they not also know that this action cannot be otherwise than from above, downwards, except it be inverted by the agency of emetics or some other causes which produce the same effect, and that in ordinary cases of emesis the action of the stomach only is inverted, in which cases no bile is discharged; and that in severe cases of vomiting, which are condemned by all prudent and well informed physicians, not only the stomachic contents are discharged, but those also of the duodenum and small intestines; and that in such cases and such only, is bile discharged by vomit—that no cause with which we are acquainted, (except that of vomiting wherein the action of the stomach is inverted,) ever does operate upon the system in such manner as to produce the presence of bile in the stomach; and that whenever the matter vomited exhibits a bilious appearance, it is to be regarded as a symptom demanding a check put to the vomiting—since in this case, the action of the emetic has become too general—has superseded the limits set by the wisdom and judgment of correct observation and experience? The physician who is not acquainted with the above mentioned facts, may have an apology—a pitiful apology to make, for advocating the use of antimonial emetics, on the ground that by their powerful action, they clear the stomach of bile! We call it but a pitiful apology, since to acknowledge it, or to use it, is to confess a degree of ignorance, repugnant to common sense, and highly disgraceful to any member of the profession; a degree of ignorance sufficient to debar any member of the faculty, the prerogative of claiming even an alphabetical knowledge of the medical science.

To recommend the use of this mineral on the ground before mentioned, having a knowledge of the facts already stated in relation to this subject, is to practice a species of base deception and hypocrisy, to promote self interest, or what is still worse, to indulge in an erroneous practice, merely to subserve the purposes of an ancient and beloved prejudice.

We have been asked by a practitioner and honourable member of the faculty, (whose head had already been whitened by the frosts of many a cold winter,) "whether medical reformers were in possession of any vegetable emetic, which would 'throw bile,' equal to tartar emetic!" We must confess, that we think it much to be lamented that the medical fraternity is partly formed of such ignorant members; that so many profess and make such high pretensions to medical erudition, who are not acquainted with the first and most simple elements of the science. Yet these men pass the medical boards and obtain certificates of their extensive acquisitions—in true science? No, but in learned and polished ignorance!

The same erroneous idea is entertained by many in regard to the superabundant accumulation of bile in the intestines and the absolute necessity of taking calomel "to carry it off." It is thought that calomel possesses some peculiar power of removing bile, and that this bile is situated in the intestines, and is therefore the cause of disease. Do physicians sanction this belief? Yes, they urge the use of calomel upon this ground; the idea, absurd and unscientific as it is, had its origin amongst physicians. We cannot ascribe this error to the people any more than we could a thousand other errors and absurd prejudices which are prevalent amongst them; which originated in the ignorance of pretended science, and of which some of the members of the medical faculty in the present day complain, as if they had not arisen from their own order. It is very obvious that in those diseases, which are generally considered bilious, there is, so far from being any bile in the stomach, a deficiency of it in the intestines where it should be. Owing to obstruction or loss of action in the excretory ducts of the liver, the bile is not passed from the liver to the intestines, but is absorbed, carried into the circulation and deposited under the skin, &c.

Then in this species of disease the object of medicine is not to carry off, or evacuate bile from the stomach, which contains none, and from the bowels in which this fluid is deficient; but rather to arouse the action of the whole exhalent or excretory system; to remove any obstruction which may exist in the biliary ducts, and thus, instead of evacuating bile from the stomach and bowels, to promote the flow of this fluid into the intestines, where the office of it is needed and for the sake of health imperiously demanded.

From what has now been said, we think that every one can see that large discharges of bile, whether it be from emetics or cathartics, are no recommendations of the propriety or utility of the articles given to produce this effect; but on the other hand these bilious discharges are indicative of the excessive and dangerous action of such articles.

Some other arguments which have more solidity and logical strength, must be sought for in order to convince the intelligent, that calomel and antimony are necessary to discharge the bile.

The grounds upon which Medical Reformers renounce the use of antimony or that preparation of it called tartar emetic, are the following, viz: That this medicine, when taken into the stomach, is exceedingly apt to produce spasmodic pains or cramps, and that violent inflammation of this organ, is sometimes the result; these grounds, we consider as furnishing tangible objections against the use of the article under consideration. We appeal to the experience and observation of our candid and intelligent reader, to confirm the validity of the above objections. The vegetable kingdom furnishes emetics against which the specified objections above, cannot with propriety be urged. These produce all the salutary effects arising from the use of emetics, and that without those incidental bad effects which arise from the use of mineral emetics.

While prescribing emetics in the treatment of diseases, we are not unfrequently told that our patient cannot undergo the operation of an emetic, and that he would about as soon run the risk of dying as to attempt it, inasmuch as he had experienced such excruciating pain from their operation on some previous occasion. And the only way in which

we can prevail upon such patients to submit to this remedy, is by assuring them that no such inconveniences as they complain of from the use of mineral emetics, will be excited by those which we prescribe—that they are easy and perfectly safe in their operation. We are happy to say that in giving this assurance we are fully sustained by the strong evidence of long tried experience.

We administer emetics to evacuate the contents of the stomach; to restore its action and secretion; to arouse the portal circulation, and in a minor consideration, to determine the circulation to the surface; to lessen spasm of the alimentary canal, and thus restore a regular action throughout its course. We give no emetics “to throw bile;” this is too absurd and ridiculous an idea to be entertained by professed physicians; we never read in any respectable medical work that emetics should be given “to throw bile.”

Several kinds of vegetable emetics from the mildness of their operation, may be given in those cases of disease, the debility of which would totally proscribe the exhibition of mineral emetics, especially that which is in most general use, *tartar emetic*. Other metallic preparations are sometimes used in the practice of medicine, with an intention of obtaining their emetic effect upon the system; but their operation in general, is not more efficacious, yet by far more harsh and dangerous than that of vegetable emetics. We deem it unnecessary to dwell longer upon this subject, as we think the reasons given are sufficient to convince those who have availed themselves of the advantages of experience and attentive observation.

These remarks have not been made to gratify a disposition to differ in opinion from those of the common and fashionable practice, nor have they been made to comply with a vulgar prejudice of the people; but honest conviction of their truth and propriety has called them forth. That man who can be convicted that a course is wrong and still follow it, and recommend it to others, can act, as no honorable and honest man should. The desire of every practitioner of medicine should be to encourage improvement in the science, nor should he himself neglect to contribute the product of his talents to this end. The medical man, who after having

finished his collegiate studies and entered upon his practical career, closes his books and shuts up his mind to all further inquiry; settles down in a set of preconceived opinions, founded upon a limited study of books, who condemns without investigation any new theory or mode of practice, who dares not meet those who hold this new theory in an open, fair and public discussion, but seeks every private or public opportunity to slander and misrepresent both the new theory and him who practises it, and that, many times at the expense of condemning and ridiculing things which he knows and in his own heart confesses to be true; such a man should be banished not only from the medical world but from all respectable society.

TO THE READER.

FRIENDLY READER, if you have perused the preceding pages with care and attention, you are now prepared to render a decision, according to your judgment and understanding of the facts and arguments therein advanced, of their real and comparative merits. We are aware that our cause, though good and true, is as yet on the back ground, when compared with the common practice in point of popularity; but we know that our intelligent, liberal and candid reader will admit, that thousands of important truths, which were once unpopular, and even regarded as errors and illusions, optical or mental, are now admitted, on all hands, to be clear and sound truths; and we are even led to astonishment, that such ignorance ever could have existed, to intercept the radiant beams of such simple and self evident truths. So conspicuous do these truths now appear, that we should think it would have required a state of darkness a thousand times thicker than ever was known in Egypt to render them obscure. If the reformed theory and practice of medicine is not true, or nearer to truth than the common mode, why do so many embrace it in this enlightened age? If it is said the ignorant only embrace it, we answer that this is, by us, classed among the long

list of misrepresentations furnished by our opposers. We contend all improvement is the result of progressive knowledge;—that our system of practice is a material and essential improvement upon the common system—and that those minds which are neither slaves to ignorance, prejudice, nor popularity, but which are open to investigation and free inquiry, and which in this way are enabled to keep pace with the march of improvement in general science, are the ones to adopt and advocate our system of practice. We are by no means afraid that our system will be disparaged by comparing the talents, the acquirements in general knowledge, the respect, ability and honor of the minds of our friends, with those of our opposers—we will not say enemies, for we do not believe that all who oppose our practice are so weak minded and unchristian as to become our enemies, simply because evidence compels us to differ from them in our opinions of the practice of medicine. We believe that we can account for a large proportion of the opposition which we receive from the people, and for even some of that which proceeds from physicians, upon other and more commendable grounds than those of self-interest, premeditated hostility, envy, pride, and fear of rivalry. It is to be attributed partly to the force or influence of early education; partly to a conscientious belief that we are right and others are wrong; and partly to circumstances too numerous to be mentioned if they were known. The remaining part of the opposition which meets us, we are sorry to say, arises among the people; but more especially among the physicians, from the causes given above.

If our system of practice is assailed, either by the people or by physicians, it is not with arguments—no, not by any thing which has the shape or shadow of argument—but merely by assertion! slander, or low and contemptible ridicule. We are not surprised that such things are aimed at us and our cause, by those who would injure us, even though the time and labour which they spend in this way should be so poorly rewarded. In many cases, they seem to be excited to slander us, by the poisonous effects of those very arrows which proceed primarily from their own

quiver; but being aimed at truth, which to them is impregnable, they are reflected again to those who sent them. This is one of the many instances which go to prove that vice creates its own punishment before its operation ends.

Reader, you are in possession of a mind—a mind made to think, and one which if properly cultivated and improved, can think as good thoughts as any other. Weigh the matter fairly, that you may clearly determine whether its specific gravity be greater or less than that of the one to which it stands opposed. Compare the subject with the facts drawn from experience—compare it with reason and your own judgment, and form your opinion accordingly, whether for or against us.

ADDRESS TO PHYSICIANS OF THE FASHIONABLE AND COMMON ORDER,—ESPECIALLY TO THE YOUNG.

THE station occupied by the physician in society is one of honor and respectability; and if his deportment and acquisitions in science be equal to the requisition of his profession, his reward is by no means unmerited. The duties of the medical profession are in all respects highly responsible; none should attempt to discharge them who possess not the requisite qualifications, whether these be the unasked gifts of nature, or the rewards of study and persevering industry.

The study of medicine, in all its departments, tends to make men humane, benevolent, humble, sober-minded, moral, liberal, and admirers and lovers of nature and of nature's God. How can we become acquainted with our physical frailties—our mental sympathies—our mutual and moral dependencies—our common origin and final destination, without being feelingly impressed with the fact, that we are all brethren;—that we have one common parent; and this idea cannot but make us kind and humane to each other. Can we become acquainted with the human mind, its capacities and excellencies, and still not be benevolent? Can we contemplate the

beauty and wisdom displayed in the formation and adaptation of the different organs of the human body, and not admire and love its author, and not be convinced of our own weakness and be humble? If we know the human mind, we shall know that it cannot reap permanent happiness from light and frivolous amusements;—but that to be sober minded and virtuous, is to promote our best possible interest—I mean our common and individual happiness. The study of any true science enlightens, and by so doing renders the mind liberal and moral. Where did ever the real philosopher exist, who could justly be called immoral or illiberal? From what has now been said, it will be inferred, that physicians who are qualified for the practice of their profession, are liberal among themselves and with their fellow men. In medicine as well as theology, there are different opinions and different denominations. But should the preacher limit his benevolence and charity to his own denomination? Should the physician of one denomination treat contemptibly all those of any other? Should not the whole sum of talents and experience of all physicians be thrown into one common stock for the benefit of all? If one physician, or a number, make any important improvement in the medical science, should they be condemned and slandered on account thereof?—has the science already arisen to that point of perfection which neither admits nor needs any further improvement? Has not each man a right in this free country to enjoy his own opinions? And have not we as reformers in medicine as good a right to follow that mode of practice which we think best, as those who oppose us have to follow their own mode?

We condemn no man, nor do we condemn any physician for his opinion; if he is honest, he takes that course which he thinks best for the welfare of his patient. He has been led to adopt the opinions which he professes, by a train of circumstances over which he might have had but little or no control. Had similar circumstances operated upon reformers, they would have adopted the same opinions.

As regards myself, I commenced the study of medicine with the expectation of finishing it in the common way, and of practising the common blood-letting and mercurial sys-

tem; but by an auspicious combination of events, my course was changed; which change has obtained me the knowledge of a safer and more efficacious mode of practice. I pursue it, because I am fully convinced of its superior merits over the common mode; and to pursue any other mode of practice under such conviction, would bring me under the severest condemnation of my own conscience. Reformers do not complain or censure other physicians for their difference of opinion, nor for their censuring the reformed practice upon the ground of such opinions; but it is the misrepresentations, the premeditated falsehoods and slanders which physicians raise against them, of which they complain. It is because physicians refuse to meet us in open, fair and public discussion that we complain. They charge us with ignorance of medical science, yet they dare not meet us in debate, notwithstanding their boasted superiority of learning. We offer to meet them in open discussion upon our own ground or upon theirs—they refuse. They must know that error has much to fear from investigation, and is extremely weak when brought into contact with truth. If, as they say, we have no grounds of our own and are unacquainted with theirs, they need not fear but that they will gain the victory.

Ye learned sons of Eesculapius, if ye think that the reformed system of medicine is founded upon false science, come forward boldly and meet its founder; he has challenged your fraternity to meet him in public debate, to discuss the merits and demerits of the respective systems. Have any of your faculty met him? No, they dare not; they know full well that their system would fall from the weight of his arguments, as the superstructure of an edifice falls for want of a foundation.

To the younger class of physicians,—to you whose minds have not become so deeply rooted in prejudice—not so much contracted by illiberality—to you who have just entered the practical career, I would say, reflect upon the high responsibility of your calling; be liberal in investigating different theories and modes of practice, that you may be better enabled to determine which is best. Look around you, and see if there are any ruined constitutions,

the state of which is to be attributed to calomel—that Sampson of the *materia medica* in which you place so much confidence. When you take the lancet to open the vein, turn your mind to the physiological importance of the fluid which is to follow the point of it. Ask yourselves if nature demands such treatment at your hand—ask if by this course you are running parallel with the steps of nature in the cure of disease. Let the questions be answered with discretion and sincerity. Again, ask yourselves if the opinions and experience of the many who follow a different practice, are not worth looking at or regarding. Ask why nature, who in general distributes her gifts with an impartial hand, came to favor you with all useful knowledge in matters of medicine, to the exclusion of all others—if it be just for you to condemn a practice, the theory and effects of which are totally unknown to you—if it be reasonable for you to say that all patients who die under the Botanical practice are killed by it, and that all who recover under it would have got well without it—that all who practice it are ignorant and unskillful? Ask whether it may not be possible that some Botanical practitioner, in his awkward mode of practice, might not have accidentally blundered into some useful point of knowledge, with which even yourselves have not become acquainted, or have overstepped in the high and lofty path in which you have travelled? Truth, like gold, occupies the lower spaces of the intellectual spheres, on account of its great specific gravity. No man goes into the air in search of gold; it is found in lower and more humble situations. So the man who would find solid truth, must not ascend into airy regions of abstract speculation, but must bend down to the region of materiality and experimental facts. Ignorance creates pride, and pride raises the eye of the mind above its proper sphere; it sees many beautiful things apparently, but they are unsubstantial as midnight ghosts,—they are all grand optical illusions.

If, after having perused the several subjects of this essay, you shall have discovered any material error therein, you are now solicited to point them out, that they may be seen by all who are interested or concerned. If you

believe me to be in error will you not help me by your arguments to get clear of them; will you not meet me in public debate or in private epistolary discussion. If you cannot convince me of my errors, if I am in error, perhaps I can convince you of yours--either of which would be productive of alike beneficial results. As young men in the science, it becomes us to discover a disposition for individual and general improvement. What can the world think of us, if we neglect to improve our opportunities for improvement in the science, and spend the time due to this, in slandering and trying to injure the reputation of the innocent and well meaning, who may chauce to differ from us in opinion.

Is it not our duty as physicians to unite in promoting the general improvement of our science; to investigate, compare, weigh and decide upon all arguments which may be brought up in favor or against any mode of theory or practice; to use every possible means which are calculated to render us more deserving and worthy of the confidence which is reposed in us? If we regard any mode of practice as being bad, it is our duty to endeavor by open and fair arguments to prove it to be so, and thus stop its progress. Truth cannot be permanently injured by slander; in fact it is sometimes brought to light by it; the shafts of envy and slander may sweep away the mists of prejudice which intervene between the minds of the people and the truth.

If the rapidity with which any cause spreads and gains strength, can be considered as any evidence in its favor, certainly the cause of medical reform can claim much from this source. It is spreading in every State in the Union; it is being adopted and advocated by the best and most enlightened of mankind; it is making rapid inroads upon the provinces of the common practice, and bids fair to supersede it. These things are encouraging to all reformers in medicine; to all who treat diseases according to the indications of nature. One thing more I will mention as an incentive to young physicians to investigate all modes of practice; that they may adopt the best.

In these United States, thousands of our fellow-beings have had their lives rendered more intolerable than death itself, in consequence of taking mercury for the cure of dis-

case. I have witnessed several instances of the destructive effects of this mineral; you are only now commencing in the field of practice, but may you not anticipate some ruined constitutions as the result of your practice, if you deal in mercury? And should you be so unfortunate as to produce the effect mentioned—I mean an ulcerated or destroyed face, a useless limb and a wretched life; I say, should you be thus unfortunate in your practice, you may have for your consolation the following thoughts. Had I been amongst those practitioners, whom I call ignorant impostors, and had I used means like theirs, this ruined constitution and unhappy life would not have been laid to my charge; the disease might have been cured in less time, and the patient have been blessed with a sound and healthful constitution, and the enjoyments of all the happiness attainable in this world; and my mind would have been saved from the torture which it now feels, from a consciousness of having done wrong. Let this be a subject for reflection.

ESSAY ON CHOLERA.

OF THE NATURE AND TREATMENT OF SPASMODIC CHOLERA.

It is very generally admitted, by scientific medical men, that a true knowledge of the pathology or nature of any disease, is indispensable to him who would treat such disease successfully. The particular character of some diseases is involved in much obscurity, owing to the indeterminate and indefinite symptoms which accompany them. All symptoms of disease are either direct or indirect, internal or external signs of derangement in the operations of nature's laws, which are applied to the government of the human system. Direct symptoms are such as proceed immediately from the organ affected, to which they are referred by the sense of perception, called feeling; indirect symptoms are those which are felt in some organ or part other than that which is the principal seat of the disease; these symptoms are sometimes called symptomatic or sympathetic. External symptoms are such as are manifest to the observation of the physician and others. These are the principal symptoms obtainable in diseases of infants. Internal symptoms are such as are only to be ascertained in general by the patient's feelings; by these the seat of diseases of the internal organs is principally ascertained. In every disease of any important organ, all of the above named symptoms are present. In cholera, during the advancement of the disease through its different stages, there are diarrhoea, chills, paleness of the surface, vomiting—with a sense of oppression, and fullness in the stomach, great thirst, compressed and feeble pulse, contractions or cramps in different parts of the muscular system, mostly in the extremities, profuse, cold and clammy sweats, cold extremities, eyes sunk in their sockets, exhibiting a wild and anxious appearance, the features in general greatly depressed, faintness, short and hurried respiration, blueness of the skin, with a peculiar blue appearance seated immediately under the finger nails, the skin of the hands corrugated, appearing as if they had been soaked in warm water; these are the general symptoms of cholera.

Different opinions are entertained by medical men, respecting the primary seat of the diseased action in cases of cholera. Some think the liver is first affected, causing an obstruction to the discharge of the bile into the intestines, and thus giving rise to diarrhoea. Others consider the primary affection to exist in the stomach and bowels. Now it must be admitted that those symptoms which appear in the beginning

of this disease, show plainly that each of the above mentioned organs are involved in the commencement of cholera, and that whether we regard the original affection as being exclusively confined to the liver, or to the stomach and bowels, or to all of these, we are taking but a limited and incorrect view of the disease. We grant that the disease first exhibits itself in a deranged state of the stomach and bowels, but this very fact is sufficient to prove that the derangement first commences in the capillary system, and that inasmuch as this system of vessels is found upon every surface of the body, whether internal or external, the whole system must be primarily and simultaneously affected at the accession of cholera. The immediate consequences of a loss of action in the capillary system, are a loss of equilibrium between the sanguineous circulation of the interior and the exterior parts of the body, a pale and sunken countenance, a diminished action of the excretory system, in some cases and under favorable circumstances, an exudation of serous fluid from the skin and internal surface of the intestines, coldness of the surface, and oppressed respiration. This state of the system cannot exist long without producing serious derangement in the functions of the stomach and bowels, which disturbance soon involves the brain through the medium of nervous sympathy. As soon as the action of the brain becomes much diminished, the heart's action is necessarily diminished, since it is depending for action upon the influx of nervous fluid sent to it by the brain; this loss of action of the brain and heart dis enables the venous system to expel the blood contained in it. The muscular system becomes subject to, and affected with involuntary contraction, (commonly called cramps,) owing to a deficiency and irregularity of influx of nervous fluid to neutralize the organic contractility of the muscular fibre. The contractions or cramps in this disease appear to be the result of the operation of two opposite and antagonizing principles; the vital or living principle struggling to overcome the inorganic or chemical principle, termed contractility when applied to animate objects, and the attraction of cohesion when used in reference to dead substances.

This chemical principle in the living animal is kept in subjection by the combined agencies of animal heat and the nervous fluid. Whenever these two agencies become deficient from any cause sufficiently strong to effect their diminution, the contractile power operates ungoverned, causing the particles which constitute the muscular fibre to contract upon themselves by paroxysms, divided by intervals of indefinite duration. This crowding or compression of the muscular fibres upon each other is manifest from the hardened elevations appearing upon the extremities during the spasms, which every one must have observed and felt, who has attended patients laboring under cholera. The pain caused by these involuntary contractions, is of the most excruciating and insupportable kind. The severity and continuance of the cramps are controlled by, and proportioned to the severity of the diseased action and the strength of the constitution; this will appear obvious when we consider the fact, that in those cases in which the subjects are old, or much debilitated by some previous disease, the cramps are but few and but slight in comparison to such cases where the subjects are young and unaffected.

ed by previous disease. In the latter cases, the morbid contractions or cramp, are strongly and violently counteracted by the life preserving efforts of the constitution, or if you please of nature. The natural consequence of this reactive effort, is pain, and that too in proportion to the strength of the effort made, and the cause of resistance. In the former cases, or those in which the subjects are old or much debilitated, the restorative effort on the part of the constitution is weak, the pain slight, the intervals of reaction long, and the chance of recovery very doubtful and unpromising. Upon the above theory, may easily be explained the reason why those that are taken with the symptoms of the second stage of cholera, after having labored under a diarrhoea for one or two weeks, are made such ready and easy victims to the disease. Their cramps are less severe and less frequent; they many times sink rapidly under the pressure of the disease, in spite of the most powerful and active means used to arrest it.

Debility or weakness is the principal, and I might almost have said the only proximate cause of cholera. It matters but little what be the cause which produces this debility, the consequence is nearly the same, whether it be brought on by intemperance in the use of ardent spirits, uncleanness, poor living, the use of bad water, crowded and ill ventilated dwellings, too much fatigue, the loss of blood for the cure of disease, the use of strong purgatives from the mineral kingdom, or the depressing influence of fear. Yet it must be acknowledged that some of the above mentioned causes tend more speedily to the production of debility than others, such for instance as intemperance in the use of ardent spirits, the loss of blood, and fear.

In some cases of cholera, and in most which have come under my own observation, the very power upon which nature depends for the purpose of counteracting disease, is to a greater or less degree carried out of the system by copious ulvine evacuations and cold clammy sweats. Such evacuations contain the nutritive portion of the blood, which is nothing less than the main spring of animal life. The continuance of these discharges will in a short time destroy the life of the strongest constitutions. The immediate cause of these evacuations is a loss of action in the capillary system, or in other words, a death of the surfaces of the body. To check the general effusion of the fluids from the body, a natural warmth and action must be established in the capillary system, the surface of the body must assume its usual warmth and colour, the fallen countenance must rise, the optic orbs must regain their brilliancy, the superficial veins must be filled, an equilibrium of the circulation must be established. These are the ends to be effected in order to constitute a successful mode of treatment for cholera. It remains now for us to enter into an investigation of the effects, reasonableness, and efficacy of the means most generally used for the cure of this disease. This investigation should be conducted according to the evidences derived from the knowledge of experience and observation under the guidance of reason; examining all evidence through the telescope of truth, casting aside the too much employed mirrors of prejudice and partiality, which always reflect false images, conveying erroneous impressions concerning the objects which produce them.

The means most generally used for the cure of cholera claim our first attention in the present investigation. The means most generally used in the treatment of cholera, may be reduced into the following classes: 1st, stimulants, 2d, cathartics, 3rd, emetics, 4th, rubefacients or external warming applications, 5th, warm bath and frictions, 6th, bleeding and cold applications. The articles of the above enumerated classes used in treating this disease, have been variously selected according to the judgment and opinion of different physicians. Amongst the cathartics, some and even most have used calomel in combination with opium; others have used the more powerful of the vegetable purgatives; while others have confined themselves to vegetable cathartics of the mildest kind; so of stimulants, some have recommended entirely that class usually called narcotics, being only stimulating in their primary effects—laudanum may be reckoned first among these; others have used only permanent and diffusible stimulants.

But without entering into a detailed account of the multiplicity of simples or individual medicines with their reputed success, it will be sufficient for our present inquiry, to consider the reasonableness and success of the two general modes of practice in cholera, viz: the depleting or calomel and bleeding, and the stimulating. In the first stage of cholera when the loss of action in the capillary system is but slight and principally manifested by a deranged state of the bowels, a dose of calomel of sufficient quantity to produce a brisk cathartic effect, may in some instances produce an equilibrium in the general circulation. This it may do, by the agitation which it gives to the abdominal viscera and the consequent acceleration of the circulation produced thereby. I presume that no one would claim the name of general stimulant for calomel; it stimulates only locally, and even so, only by a mechanical irritation; in this way it not unfrequently destroys the texture of the part with which it comes in contact; its operation, as a chemical agent upon the living animal, is in agreement with the life destroying principle of inorganic contractility, and as a consequence of this its effect, the living principle of vitality acting against it, gives rise to cramps of the stomach and bowels, not uncommon in cases where this article is exhibited. It is well known that calomel as a medicine is slow in producing its effect, and when we consider the liability of the first stage of cholera to run into the second without being governed by any certain period, or without giving timely warning by any indubitable symptoms, I say, a consideration of these facts in connection, will form a powerful argument against its use, even were it generally proved to be beneficial in cases where its operation is obtained.

Doctor J. W. Francis, of New York, while speaking of the use of calomel in the treatment of cholera, observes; that “mercury from the peculiar *irritability* and *debility* which it often induces, adds to the *predisposition* to the disease, and when formed, cholera, in a majority of cases, is too rapid in its course to be checked by the uncertain and tardy salivating influence of calomel or other mercurials. That our list of mortality by cholera has been enlarged by this method of treatment, is the opinion of some of our best prescribers.” From the very nature of cholera, the mercurial action is not so readily induced,

and the disorder advances from this cause, and the probable neglect in the meanwhile of the use of other means.

Every medical practitioner knows, or should know that these views of Dr. Francis, as to the nature and effects of mercury are correct; and every person acquainted with cholera, knows that it "is too rapid in its course," to be checked by the tardy operations of calomel; nay that the most active and powerful medicines too often fail to arrest its fatal progress and termination. Painful experience, has but too clearly proved the truth of the assertion of Dr. Francis, viz: "That the calomel treatment of cholera, is but the wrestling of a pigmy with a giant."

That any one acquainted with the effects of calomel, and with the nature of cholera, should rely upon so slow an agent for the cure of a disease so rapid in its progress, is a subject of much astonishment. But after experience has fully shown the inefficiency and inconsistency of the practice, that men of acknowledged acquirements in medical science, should still persist in the course and recommend it to others, is a matter, of all others, involved in the most profound irrationality and inconsistency. Calomel, exhibited in the second stage of cholera, or after the commencement of the spasms, cannot claim the merit of being even in the slightest degree auxiliary in arresting the progress of this disease. For in almost every case of cholera in the second stage, the action of the stomach and bowels is so much impaired, that were it not for a change effected in these organs by the efforts of nature, the calomel could produce no effect. Under the most favorable circumstances, it requires several hours for any sensible effect to be produced by this medicine; it most therefore appear obvious to every reflecting and correctly informed mind, that in the treatment of such a disease as cholera no time should be lost, but that such medicine should be used as will produce an immediate effect to restore the lost action of the stomach and of the capillary system in general. In cases of cholera, which have arrived to the second stage and in which no other means are employed than calomel, one of two things is inevitable, viz: that the patient must be relieved and cured by the sanative efforts of nature, independently of any effect of the medicine, or he must die. For after the disease has passed into the spasmodic stage, it almost uniformly terminates, either favourably or otherwise, in a shorter period of time than would be required for the operation of calomel even under tolerably favorable circumstances. Medicine to counteract the cholera must be quick, powerful and permanent in its effect; quick, lest the disease shall have progressed beyond the limits of medical jurisdiction; powerful, lest it be carried before the progress of the disease, as a straw in the current of the ocean; permanent, lest the disease after a short and deceptive remission, return with greater violence than at first. If stimulants be found most efficient and consonant with nature in the removal of cholera, (and I am fully convinced they are) their superiority, under judicious modifications, will be established in the treatment of all diseases. There are but two states of the human system--one of health the other of disease. Disease is in itself a *unit*; it is loss or diminution of action, and is consequently destructive to the living principle which is preserved by action forced by proper stimuli. The daily food which

we take is made subservient to this object, viz: to support the power of action upon which life depends. The only difference which distinguishes affections of the human system, termed disease, is in the degree to which action is diminished, and the part which may be most affected by the lost action. Upon these circumstances depend the almost infinite number of varying symptoms which appear in the progress of disease. Cholera itself, would be divested of its singularity, if it were not that its character is marked by these conditions, in an uncommon degree; that is, great diminution of action suddenly induced. The indication of cure is conspicuously marked out in the pathology of the disease. It is simply to effect a restoration and equalization of action throughout the system. Whatever will do this effectually, quickly, and permanently, will deserve the title of cholera specific.

In times and in places, during the prevalence of cholera, a diarrhœa is justly regarded as the unwelcome and in many cases true precursor of cholera. Every reasonable person would feel himself in danger, should he permit such complaint to continue at such a time for any considerable period; he cannot trust to medicine of tardy operation; his only safety consists in the immediate use of such medicines as will make an immediate impression upon his system as to restore an equilibrium in the circulation. Hence the use of calomel in cholera is inadmissible even in the 1st stage. Its operation in the 2d stage must be uncertain and of doubtful efficacy, since in most cases, except where powerful stimulants are used the 2nd stage runs into the 3rd, or stage of collapse, before calomel could operate even under the most favorable circumstances. Of its administration in the stage of collapse, it is hardly necessary to speak, since no man of common sense and possessing any knowledge of the disease, and of the nature of calomel, would be so presumptuous or rather so weak minded as to administer it. In this stage, which is upon the very verge of death's domains, it is certain that none other than powerful stimulants can be of any avail, nor is there much reason to expect any benefit even from them.

Calomel being the champion of the modern materia medica, no wonder that physicians, confiding in its efficacy and advocating the safety and propriety of its administration, should regard it as the sheet anchor of their success and the polar star of their hope, in the treatment of one of the most malignant and unmanageable diseases that ever traversed our country. Under the influence of this hope, which has not one reasonable argument for its basis, physicians have resorted to the abundant use of calomel for the cure of cholera. They have given it a fair trial both as regards the quantity and the great variety of circumstances, such as temperaments, constitutions, ages, sexes, climate, season of year, and different stages of the disease attending the patient for whose relief it was administered. From fifty to two hundred and fifty grains have been administered at one time to the same individual; but what has been the consequence of such a practice? Has it not generally been the death of those who were the subjects of it? In cholera, as in all other diseases, nature takes steps to effect what is termed a natural cure; but the operation of calomel does not run parallel with the steps of nature in the cure of diseases; so far from its removing disease, it may and

frequently does become the real and original source of many and painful diseases.

If in the treatment of cholera the indication or intention be a reduction of the powers of life, a warfare against the efforts of nature in behalf of the patient's health, an experiment in the theory of depletion, an attempt to cool the system according to the much talked of frigid treatment of ice, cold water to abbreviate the period common to the spasmodic stage and hasten the stage of collapse, then bleed! bleed, *ad deliquium animi!* and the above described indication in each of its branches will be fulfilled. The powers of life will be diminished, a successful warfare against the efforts of nature will have been instituted; an experiment, a convincing one, will have been made in the depletory theory, an effectual attempt will have been made to lessen the superabundant animal heat, one even better calculated so to do, than the use of cold water and ice. The stage of spasmodic contractions will have been abbreviated and the stage of collapse prematurely ushered in. Ye advocates of the lancet and professed conservators of your fellow men; consider this subject candidly; consider it in the connection and light of true physiology and rational philosophy, and then tell me if my conclusions be not correct; tell me if the light of my short experience has shone falsely upon my mind; tell me if I am rash in coming to the conclusion that more lives have been lost by an unnatural treatment in cases of cholera, than by cholera itself. Those who uphold the practice of bleeding in cholera, will use the following argument for its support, viz: that bleeding relieves the spasms or cramps. Now this fact, as well as a 1 other things which can be shown as facts, I am ready to admit; yet notwithstanding this admission, this argument is the most convincing and powerful one which can be brought against the very doctrine for the support of which it is usually adduced. Bleeding relieves spasms. What causes spasms? Is it not a deficiency of the blood and animal heat in any part of the body, which deficiency gives the ascendancy to the principle of inorganic contractility, over the principles of expansion and dilatation, or in other words the anti-chemical principle of animal vitality?

The principle of vitality is contained in the blood and kept alive by exercise; that is, by going the rounds of the circulation, and giving off such parts as are no longer useful and receiving such as are conducive to health and life. Now if the vital powers would yield passively to the absolute control of the chemical principle before described, no cramps or pains would occur; it is the resistance offered to this principle—the efforts of nature against disease, which causes the pain; take away nature's resource—the blood, and the pain will soon cease. This is the way in which bleeding relieves cramps. This is proved to be the case by the subsequent results.

There is another way in which cramps are removed in cases of cholera, analagous in its effect, and upon the same principle as bleeding; I mean by the profuse, loose, watery stools and the copious effusion of cold sweat from the skin. In these evacuations, the vital powers run off rapidly, and if not soon checked by some means, they will as certainly and effectually relieve the cramps as bleeding. It must here be re-

remembered that the cold sweats and profuse alvine evacuations, are totally unlike those salutary and all important evacuations which proceed from the same sources in times of health, but which instead of lessening the vital powers, tend to cleanse and purify the blood, and thus impart new tone and vigor to the whole system; for in cases of cholera, as soon as such kind of evacuations can be obtained, the patient is safe, the cramps are relieved, by a removal of the cause which produced them.

But the last and generally as forcible as any argument that can be brought to sustain the practice of bleeding is, that some who have had the cholera and been bled have recovered. This is no more than to say, that in some cases of cholera, the strength and natural powers of the patient are sufficient to overcome the cause, in spite of the impediment produced by bleeding; the case is protracted, but not rendered hopeless by bleeding. The relief obtained by bleeding in cases of cholera, is like that obtained by the same means in other cases; it is momentary relief, for which the patient sooner or later must pay dearly. All physicians of common sense and information dread the consequences of profuse diarrhoea and cold sweats in cholera, or in fact in any other disease; why not dread the loss of blood which in proportion to the quantity taken and the patient's strength, produces the same result? I have found that in all cases coming under my own observation, which were attended with cold sweats and profuse diarrhoea, unless these latter could be checked very soon, the patient would sink into the stage of collapse and die; and in every one of such cases the spasms have been light and few in number, compared with those who have not had the evacuations above mentioned or have been soon relieved of them. In cases where the vital powers have been much diminished by diarrhoea, the system becomes insusceptible to the action of stimulants; and where these fail, there is no remaining hope. Reasoning from the idea of continuous sympathy existing between the skin and the internal living membrane of the bowels, and from analogy and personal experience, I suppose that the inner coats of the stomach and bowels are cold and almost as insensible, in cholera, as is the external surface. We know that in many cases the skin is so insensible, that powerful frictions made with warm brandy and cayenne, by the hand, are not felt by the patient. Then, if the stomach and bowels or their surface be in this condition, and we have every reason to believe them to be so, to a certain extent, where would be the propriety in bleeding or in administering calomel? Nothing but the most powerful stimulants can give relief in these cases; and in some cases not fairly passed into the stage of collapse, even stimulants the most powerful produce little effect; they fail to excite more than a partial reaction. Those who in cases of cholera use the lancet and stimulants, may be compared to a house, divided against itself. They carry the means of death in one hand and those of life in the other, with one hand they tear down, and with the other they build up; they practice upon the compound theory of depletion and repletion; they are divided against themselves, denying by the act of one hand the propriety of what is done by the other. It may be said that I am rather too sanguine in my exposition of the calomel and

bleeding practice: this charge will be set aside in my own mind by the still small voice of conscience, which either approves or condemns all our actions, according as they are found right or wrong.

I am aware that when writing upon a subject of so much importance as the present, it is my imperative duty to speak what I am convinced is truth; and I do this, regardless of giving off me, or of losing popularity. It is well known that the practice of bleeding is supported by one very plausible argument, viz: that it relieves pain; and by another less reasonable, yet more potent, viz: popular prejudice. But I am happy to see, that the clouds of ignorance and error are breaking away before the approach of knowledge and truth. A few years past, Medical Botany was hardly known, in the sense in which it is now known—I mean as a mode of practice, opposed to bleeding and mercenaryizing, and removing the cause of the disease upon rational principles. But where is it now?—who are its friends?—what is its success?—and for what reason do the old faculty fear it, and strive to misrepresent it? These are questions which may be answered correctly by every honest and intelligent person. Perhaps no disease has been so instrumental in removing prejudices from the public mind, and opening the eyes of thousands to the truths of the Botanic or reformed practice of medicine, as the one now under consideration. The dread of cholera and its effects has been more than equal to the prejudice entertained by thousands against any improved system of medicine. The treatment of all anti-mephitic doctors in cases of cholera, have been stimulating. Medical Reformers, or the followers of Dr. Worcester Beach of New York, (one of whom, I have the honor to be,) the Thompsonians—the followers of the excellent and long to be lamented H. Howard; together with many of the most respectable of the old faculty of physicians both of Europe and America, have pursued the stimulating practice in the treatment of this disease. The articles used, though of the vegetable kingdom, have been various; some have used the stimulating narcotics, as opium and camphor; others alcohol, brandy, myrrh, cayenne, turpentine, essential oils, ether, &c. &c. The stimulating practice has, in all places where it has been pursued, proved most efficacious. This has been acknowledged by many respectable physicians who did not resort to it themselves; reason supports it; common sense is in its favor, and nothing but blind and wilful prejudice now opposes it. Look at places around us; look at the results of the two modes of practice in Dayton, in Cincinnati, in Troy, in Lebanon, in Chillicothe, in Columbus and Maysville.

The object in the treatment of Cholera is to equalize the circulation,—to neutralize the principle of inorganic contractility, by diffusing throughout the system the principle of vitality contained in the blood. I have witnessed the good effects of stimulants in bringing this state about. I have witnessed the rising of the fallen and contracted countenance,—the drying up of the cold sweats,—the restoring of warmth to the extremities and surface,—the raising of the superficial veins,—the subsidence of the spasms,—and the well known glow of health, in many cases treated entirely upon the stimulating plan. The reaction which takes place is a fever, and in all cases tends to the resto-

ration of perfect health. No danger of a patient's having cholera, so long as he has a fever. Cholera is a state of the system directly opposed to fever; and when called to a patient who is supposed to have cholera, if I find him laboring under the common symptoms of fever, I am ready to insure him against cholera, so long as fever exists. There are affections of the system, which are incompatible with cholera and which cannot run into it. In no one case, have I witnessed the failure of the stimulating treatment for cholera, where the symptoms and circumstances of the case were at all favorable at the commencement of such treatment. The aged and the debilitated, and particularly the intemperate are generally ready and easy victims to this disease. In such cases the heart and other internal organs have so far lost their excitability as to be inadequate to the production of a complete reaction, even from the influence of the most efficient stimulants. Here we are only able to produce a partial reaction. The patient in these cases does not die under the usual symptoms of the stage of collapse, but under the exhausted struggles of a reactive effort. In these cases the symptoms appear to encourage a hope till within a very short time previous to death. But by a close examination in such cases, it will be found that the pulsation at the wrist is very weak and intermitting, that the face is visited by alternate flashes of heat and cold, that the breathing is short and oppressed and the patient is uneasy and restless. In such cases the cramps or spasms are light and few in number, and the reaction is obvious; because the vital powers are weak and easily yield to the life destroying principle of innervic contractility. It is not for me to give the preference to any one stimulant or stimulating preparation; since different articles and preparations of this class have been used with apparently equal success. In the South, about New Orleans, and in different parts of Louisiana, laudanum has been used with great success. It should be remembered that this too, in its primary effect, is a diffusible and powerful stimulant, carrying before it the sanguineous circulation and the nervous fluid or principle of nervous excitability. In Germany and some other parts of Europe, the camphor treatment has been most prevalent and successful. The Thompsonians have been generally successful in the treatment of this disease, and their stimulants have been cayenne, myrrh, in the form of a compound tincture, lobelia as an emetic, the 3rd preparation of this article, valerian, bayberry, &c. &c.

Bring myself one of the order of physicians termed Medical Reformers—one of the followers of the talented and learned Dr. Beach—it would be improper for me to speak of the success of our order in the treatment of cholera, as it will be said that I am interested, and therefore not a suitable person to judge. I shall however mention some of the principal stimulants used by us, and leave those acquainted with our practice to judge of its success. Our stimulants are camphor in the form of compound tincture, capsicum, laudanum and valerian; we use frictions and apply warming applications externally; prohibit the use of cold drinks of any kind, having no confidence in cold water nor in ice for the cure of a disease, which if unchecked, needs not the assistance of ice to render its victim cold! Common sense if not opposed

by vulgar prejudice, would dictate that in all cases of cholera from the coldness present, warm and stimulating medicines should be administered. Accordingly and fortunately for the patient, when a person distant from medical aid happens to be attacked with this disease, the bystanders and friends, if they do not lose all presence of mind, resort immediately to the administration of camphor, brandy, laudanum, warm tea or some other means calculated to give relief, and the consequence of such procedure is in general the relief of the patient—thus in many instances rescuing the patient from the unnatural and life destroying practice of bleeding and calomel.

The habit of using preventives, recommended by some, cannot fail to be pernicious in its consequences. To keep the system constantly under the influence of stimulants must tend to derange the natural functions of the system. It would tend to produce debility, and thus render the system more liable to be attacked, and by habituating it to the use of stimulants, less susceptible of their action in case of an attack. The best preventive is a strict observance of temperance in all things, and a confidence in some medicine or some mode of practice in case of an attack. To confide in the efficacy of medicine and the skill and knowledge of some physician whose attendance could be obtained if needed, is the surest safe-guard against fear, the most powerful, and perhaps most common exciting cause of cholera. When a patient laboring under diarrhoea gives way to the influence of fear, he is most sure to be thrown into the second stage of cholera. But in the first stage relief is almost certain if application be not too long deferred; and he who in this state indulges in fear, discovers his want of confidence in medicine, and is truly to be pitied. Let every one spend a few hours of deliberate reflection upon this subject; let him come to the conclusion that he will use some particular medicine dictated by his judgment, in case of an attack; let him secure a confidence in such medical aid as reason and his own judgment shall point out; then let him pursue a temperate course in all things, shunning all medicines as preventives while in health, and he may with propriety consider himself comparatively secure from an attack of this disease.



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